Model 430

Shake/Slush Freezer

Service Manual

051430-S

TAYLOR®

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Note: Continuing research results in steady improvements; therefore, information in this manual is subject to change without notice.

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051430–S

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Rockton, IL 61072

Section 1: Introduction

- **Safety**
- **Refrigerant**
- **Specifications**
- **Running Specifications**
- **Installation Instructions**
- **Refrigeration System**

Safety

We at Taylor Company, are committed to manufacturing safe operating and serviceable equipment. The many built-in safety features that are part of all Taylor equipment are aimed at protecting operators and trained service technicians alike.

This manual is intended exclusively for Taylor Company authorized service personnel.

Stationary appliances which are not equipped with a power cord and a plug or other device to disconnect the appliance from the power source must have an all-pole disconnecting device with a contact gap of at least 3 mm installed in the external installation. Failure to follow this instruction may result in electrocution.

This machine must be placed on a level surface. Failure to comply may result in personal injury or equipment damage.

DO NOT install the unit in an area where a water jet could be used to clean or rinse the freezer. Failure to follow this instruction may result in serious electrical shock.

This machine is designed to operate indoors, under normal ambient temperatures of 70°-75°F (21°-24°C). The machine has successfully performed in high ambient temperatures of 104°F (40°C) at reduced capacities.

NOISE LEVEL: Airborne noise emission does not exceed 70 dB(A) when measured at a distance of 1.0 meter from the surface of the machine and at a height of 1.6 meters from the floor.

Refrigerant

Taylor Company uses R404A refrigerant. This refrigerant is generally considered non-toxic and non-flammable; however, any gas under pressure is potentially hazardous.

NEVER fill any refrigerant cylinder completely with liquid. Filling the cylinder to approximately 80% will allow for normal expansion.

Refrigerant liquid sprayed onto the skin may cause serious damage to tissue. Keep eyes and skin protected. If refrigerant burns should occur, flush immediately with cold water. If burns are severe, apply ice packs and contact a physician immediately.

The Taylor Company reminds technicians to be cautious of government laws regarding refrigerant recovery, recycling, and reclaiming systems. If you have any questions regarding these laws, please contact the factory Service Department.

WARNING: R404A refrigerant used in conjunction with polyolester oils is extremely moisture absorbent. When opening a refrigeration system, the maximum time the system is open must not exceed 15 minutes. Cap all open tubing to prevent humid air or water from being absorbed by the oil.

Model 430 Specifications

Freezing Cylinder

One, 4 quart (3.8 liter) capacity.

Mix Hopper

One, 14 quart (13.2 liter) capacity.
Refrigerated and insulated.

Beater Motor

One, .25 hp. motor.

Refrigeration Unit

One, approximately 4,000 btu/hr compressor.
Refrigerant 404A.

Electrical

Standard is 115/60/1. This equipment is supplied with a 3-wire cord and grounding type plug, for connection to a single phase, 60 cycle, branch circuit supply. This unit must be plugged into a properly grounded receptacle. The cord and plug provided are 20 amp. for 115/60/1, or 15 amp. 208-230/60/1. Therefore, the wall outlet must also be 20 amp. for 115/60/1 or 15 amp. for 208-230/60/1. For exact electrical information, always refer to the data label of the unit.

Air Cooled

Clearance: 6” (15.2 cm.) around all sides.

Dimensions

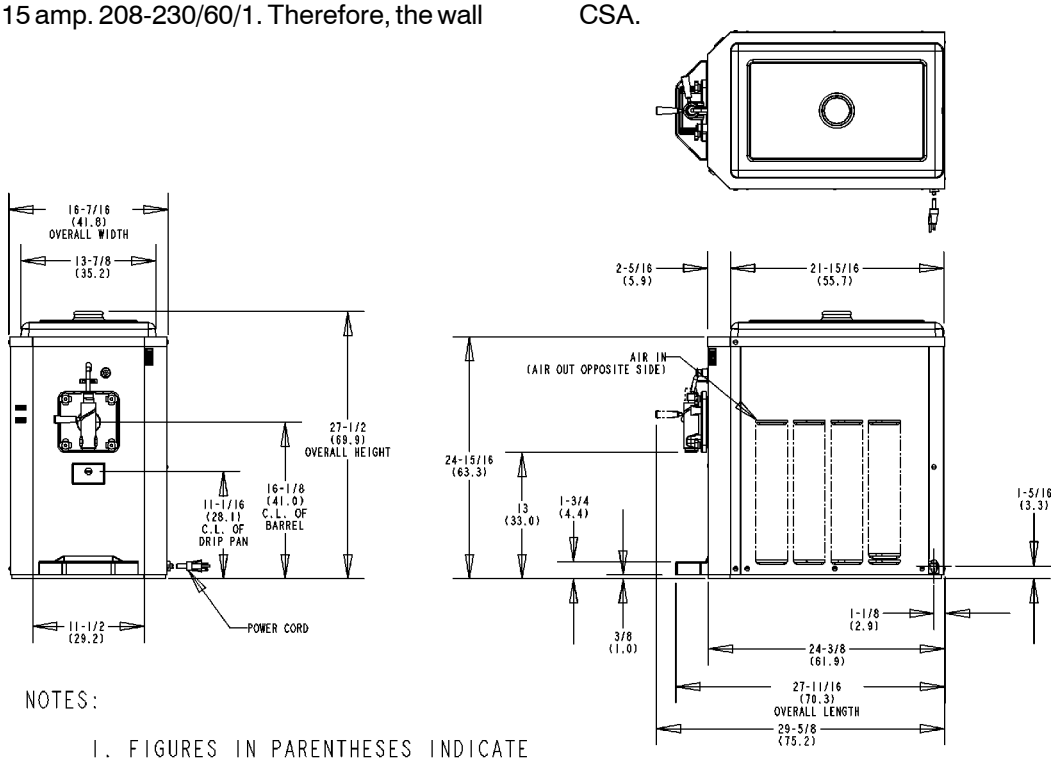
Width: 16-7/16” (41.8 cm.).
Depth: 28-3/4” (73.0 cm.).
Height: 27-1/2” (69.9 cm.).
Floor Clearance: Designed to rest on a plastic pad directly on a counter top.

Approximate Weights

Net: 176 lbs. (79.8 kgs.).
Crated: 215 lbs. (97.5 kgs), 14.5 cu. ft. (.40 cu. m.).

Specifications are subject to change without notice.

This unit is designed and constructed to meet stringent safety and sanitation requirements for NSF, UL, and CSA.



NOTES:

1. FIGURES IN PARENTHESES INDICATE CENTIMETERS.

Running Specifications

Expansion Valve Setting

404A/HP62: 38 - 39 PSI (262 - 268 kPa.).

Low Side Pressure

Low side pressure = expansion valve setting.

To adjust the low side pressure, place the gauge on the low side suction port at the compressor. With the compressor running, turn the adjustment knob of the automatic expansion valve clockwise to raise low side pressure and counterclockwise to lower pressure.

High Side Pressure

Air Cooled: The following chart indicates normal operating head pressures at various ambient temperatures:

Ambient Temperature		Normal Operating Head Pressures
F.	C.	PSI
70°	21.1°	240 - 270 (1,655 - 1,862 kPa.)
80°	26.7°	270 - 300 (1,862 - 2,069 kPa.)
90°	32.2°	300 - 340 (2,069 - 2,344 kPa.)
100°	37.8°	340 - 380 (2,344 - 2,620 kPa.)

E.P.R. Valve Setting

The product temperature in the mix hopper is maintained by the main refrigeration system and can be adjusted by the E.P.R. valve. The E.P.R. valve is factory set at 57 - 59 PSI (393 - 406 kPa.) in order to maintain hopper product temperature below 40°F. (4°C.).

Installation Instructions

Air Cooled Units

Air cooled units require a minimum of 6” (15.2 cm.) of clearance around all sides of the freezer. Failure to allow for adequate clearance can reduce the refrigeration capacity of the freezer and possibly cause damage to the compressor.

Electrical Connections

Each freezer requires one power supply. Check the data label on the freezer for fuse, circuit ampacity and electrical specifications. Refer to the wiring diagram, provided inside the control box, for proper power connections.

This equipment is intended to be installed in accordance with the National Electric Code (NEC), NFPA 70. The purpose of this code is the practical safeguarding of persons and property from hazards arising from the use of electricity. This code contains provisions considered necessary for safety. Compliance therewith and proper maintenance will result in an installation essentially free from hazard.

The NEC is a United States regulatory agency. International users must follow local electrical codes.

CAUTION: THIS EQUIPMENT MUST BE PROPERLY GROUNDED! FAILURE TO DO SO CAN RESULT IN SEVERE PERSONAL INJURY FROM ELECTRICAL SHOCK!

Beater Rotation

Beater rotation must be clockwise as viewed looking into the freezing cylinder.

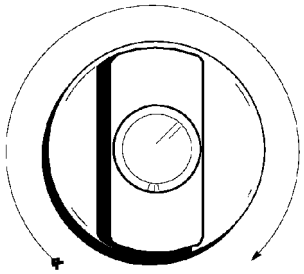
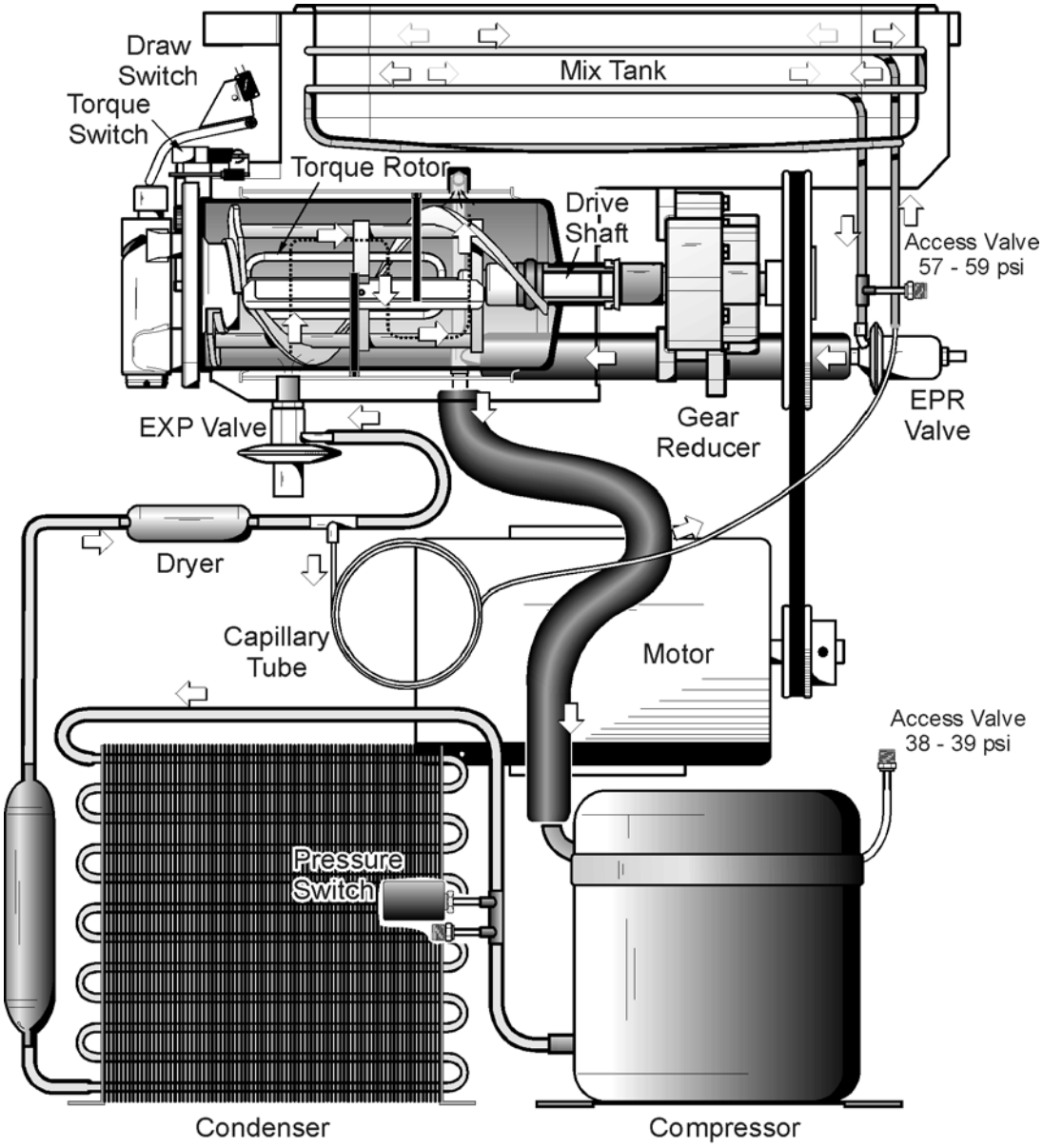


Figure 1.

To correct rotation on a single-phase unit, exchange leads inside the beater motor. (Follow the diagram printed on the motor.)

Refrigeration System



Section 2: Controls

- **Torque Control**
- **Thermistor Control**
- **Thermistor Curve**
- **Mix Level Control**
- **Mix Level Control Diagram**

IMPORTANT: The Model 430 was first manufactured with the Thermistor Control and is now designed with the Torque Control. The information in this manual covers both designs.

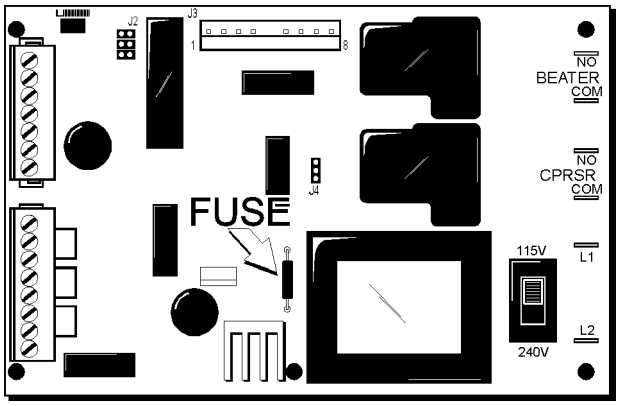
Torque Control

Operation

When the unit is placed in the “AUTO” mode, the beater motor is activated. After a three second delay, the compressor starts. When the torque sensor indicates that viscosity has been achieved, it trips a microswitch, and the compressor stops. The beater motor continues to run for 20 seconds and then stops.

If the torque sensor returns to the unsatisfied position during the additional 20 seconds of beater operation, the compressor will run again for an additional 10 seconds (minimum), and will continue until the torque sensor is satisfied. The beater motor will run for 20 seconds.

If the torque sensor remains in the satisfied position after a 7 minute cycle time has elapsed, the refrigeration system will reactivate for 12 seconds, or until viscosity is satisfied.



Features

Mix Low **/ Mix Out**

The Taylor Model 430 torque control is equipped with the mix low/mix out function. When the mix supply is low, the sensor activates the “MIX LOW” light to indicate a need for mix replenishment.

When a mix out condition is detected, the sensor activates the “MIX OUT” light. The beater motor and compressor are disabled at the completion of the draw.

Once the mix supply has been replenished, there is a 30 second delay before the refrigeration system continues.

Protection Fuse

There is an external fuse located on the control board. (See illustration on page 8.) Although it appears to be soldered to the board, it is actually plugged into two small sockets on the board. The fuse protects the transformer from damage in the event that the secondary side of the board becomes shorted. When the fuse is open (blown), all board functions are interrupted. The fuse must then be replaced.

Lockout (Optional)

The unit is equipped with an optional lockout mode. The lockout mode requires that the unit be taken apart and cleaned every four days. (Taylor recommends, and most local health code laws demand, daily cleaning.)

If the unit is not taken apart and cleaned in four days, the control will enter the lockout mode, and the cleaning required light will flash. The beater motor and the compressor are then disabled.

The lockout mode works by use of a magnet. The magnet has been placed in the upper right hand corner of the freezer door. Behind the front panel of the freezer, there is a reed switch. (Door switch on the wire diagram.) When the freezer door is in place on the freezer, the magnet holds the reed switch open, signaling the control that the door is in place. When the freezer door is removed, the reed switch closes, signaling the control that the door is not in place. The control must sense that the reed switch is closed for at least five minutes and that the power switch is in the “OFF” position before the lockout is cleared and the four day timer is reset.

Ready Light (Optional)

When the control determines that the product is at a servable viscosity, the “READY” light on the front panel illuminates. Servable viscosity is determined in the following manner.

When the control switch is first placed in the “AUTO” position, the product must freeze down to the viscosity set point (until the torque switch is satisfied). Once the torque switch is satisfied, the “READY” light will illuminate. During normal draw patterns, the control monitors how long the draw valve is open to estimate the amount of product drawn, and the control monitors how long the compressor has run to estimate the amount of cooling that has taken place. Within the software a “Reference Value” has been established to determine the status of the “READY” light.

Drawing product raises the reference value, compressor operation lowers it. When the reference value drops to the pre-determined value, the ready light illuminates.

Thermistor Control

Function

The thermistor control maintains temperature in the freezing cylinder by monitoring the resistance of the thermistor probe.

Specifications

Temperature Differential: cut in = 2°F. (1.1°C.) above cut-out.

Coarse Adjustment Range: 10° to 30°F. (-12° to -1°C.).

Fine Adjustment Range: 4°F. (2°C.) total.

Coarse Adjustment Potentiometer: 1/4 turn = approximately 6°F. (3°C.).

Input Voltage Supply: 24 VAC.

Thermistor Probe (Part # 038061-BLK)

The resistance value of the thermistor probe corresponds with the product temperature in the freezing cylinder. As the product becomes colder, the probe resistance increases. As the product becomes warmer, the probe resistance decreases.

Approximate probe resistance readings:

1. 10,000 ohms at room temperature: 78°F. (25°C.).
2. 46.012 ohms at serving temperature: 20°F. (-6.6°C.).

Operation

The thermistor probe is positioned in the bulb-well located at the front of the freezing cylinder. The thermistor control becomes operational when powered by the 24 VAC transformer.

When the desired product is achieved (control set-point) the thermistor control relay opens and discontinues the power sent to the compressor relay coil.

When the product in the freezing cylinder reaches 2°F. (1°C.) above the control set-point, the thermistor relay closes, sending L1 power to the compressor relay coil. The refrigeration system will run until the control set-point is achieved.

Anticipator

The anticipator signals the thermistor control to activate the refrigeration system whenever product is drawn. As the draw valve is raised (freezer draw switch closes), continuity is created between the thermistor control anticipator terminals. The thermistor control relay will close within 1 second to start the refrigeration system.

Upon completing the draw, the thermistor control recognizes the loss of continuity between the anticipator terminals, but will continue refrigeration for at least 25 seconds. This allows for additional blending and freezing of the warmer mix which has entered the freezing cylinder. After approximately 25 seconds have elapsed, the thermistor control returns to normal operation and cycles off the refrigeration system when the set-point temperature is achieved.

Cycle Timer

During periods when no product is being dispensed, an 8 minute cycle timer will signal the thermistor control to activate the refrigeration system. As the timer cycles, continuity is created between the thermistor control anticipator terminal. The thermistor control relay will close within 1 second. The refrigeration system will then activate.

Setting Temperature

1. Position the thermistor fine adjustment at mid-range. This will limit the fine adjustment temperature range to ±2°F. (±1°C.).
2. Turn the coarse adjustment clockwise to the coldest setting.
3. With the freezer correctly primed, place the power switch in the “AUTO” position.
4. After the appropriate freezing time, test the product temperature. When a sample portion temperature is approximately 1° above the desired temperature setting, slowly turn the coarse adjustment counterclockwise (warmer) until the refrigeration system cycles off.
5. Allow the refrigeration system to cycle through at least two “OFF” cycles. After the unit cycles off, draw a sample of product and check the temperature. Readjust the coarse adjustment as required, but make only small adjustments.

Note: The anticipator automatically activates the refrigeration system 0 - 1 second after the draw valve is opened. If several small samples are drawn, the temperature may drift lower. To accurately set the control, let the product temperature stabilize by allowing the thermistor control to cycle the freezer on and off by the control set point instead of the anticipator.

Service Tips

If a problem arises with the thermistor control assembly, identify and replace only the faulty component. For example, if the probe is defective, replace only the probe.

A varistor must be connected to the thermistor control’s 24 VAC terminals in order to protect the control from voltage spikes (varistor part number X31547).

Fill the bulb-well with automotive antifreeze before installing the thermistor probe, and be sure the probe is installed completely into the bottom of the bulb-well.

Note: Lower the probe to the point where the wires extend from the probe and a resistance is felt. This indicates the probe is installed completely in the bottom of the bulb-well.

If the thermistor relay which *starts* the compressor will not close, check the following items:

ELECTRICAL SHOCK AREA! USE CAUTION!

1. Make sure power is being supplied to the freezer and that all operating switches are in the correct position.
2. Using a voltmeter, check the voltage supply to the thermistor control. The control requires 24 volts to operate.
3. Using an ohmmeter, check probe resistance. (Refer to the thermistor curve chart on page 12 for proper readings.)

If the thermistor relay which *deactivates* the compressor will not open, check the following items:

ELECTRICAL SHOCK AREA! USE CAUTION!

1. Make sure the thermistor relay opens when the freezer control switch is in the “OFF” position.
2. Make sure the thermistor probe is connected to the correct probe terminals.
3. Using an ohmmeter, check the thermistor probe for proper resistance. (Refer to the thermistor curve chart on page 12 for proper readings.)
4. Disconnect one wire to an anticipator terminal. If the thermistor relay opens after approximately 25 seconds, the problem is in the anticipator wiring circuit.

When problems such as erratic product quality occur, it is of utmost importance to determine if the thermistor components are defective before replacing them.

For a diagram of the thermistor control, see page 21 (Troubleshooting Thermistor Components).

Thermistor Curve

F.	C.	K OHM	F.	C.	K OHM	F.	C.	K OHM
-10	-23.3	118.201	22	-5.5	43.530	54	12.2	17.915
-9	-22.7	114.394	23	-5.0	42.340	55	12.7	17.451
-8	-22.2	110.709	24	-4.4	41.136	56	13.3	16.998
-7	-21.6	107.143	25	-3.8	39.967	57	13.8	16.557
-6	-21.1	103.692	26	-3.3	38.830	58	14.4	16.128
-5	-20.5	100.352	27	-2.7	37.727	59	15.0	15.710
-4	-20.0	97.120	28	-2.2	36.654	60	15.5	15.315
-3	-19.4	94.085	29	-1.6	35.612	61	16.1	14.929
-2	-18.8	91.144	30	-1.1	34.599	62	16.6	14.554
-1	-18.3	88.296	31	-0.5	33.616	63	17.2	14.187
0	-17.7	85.536	32	0	32.660	64	17.7	13.830
1	-17.2	82.863	33	0.5	31.760	65	18.3	13.482
2	-16.6	80.273	34	1.1	30.885	66	18.8	13.143
3	-16.1	77.765	35	1.6	30.035	67	19.4	12.812
4	-15.5	75.334	36	2.2	29.207	68	20.0	12.490
5	-15.0	72.980	37	2.7	28.403	69	20.5	12.185
6	-14.4	70.627	38	3.3	27.620	70	21.1	11.888
7	-13.8	68.350	39	3.8	26.859	71	21.6	11.598
8	-13.3	66.147	40	4.4	26.120	72	22.2	11.315
9	-12.7	64.014	41	5.0	25.400	73	22.7	11.039
10	-12.2	61.951	42	5.5	24.721	74	23.3	10.769
11	-11.6	59.953	43	6.1	24.059	75	23.8	10.507
12	-11.1	58.021	44	6.6	23.416	76	24.4	10.250
13	-10.5	56.150	45	7.2	22.789	77	25.0	10.000
14	-10.0	54.340	46	7.7	22.180	78	25.5	9.763
15	-9.4	52.854	47	8.3	21.586	79	26.1	9.532
16	-8.8	51.409	48	8.8	21.009	80	26.6	9.306
17	-8.3	50.003	49	9.4	20.447	81	27.2	9.085
18	-7.7	48.636	50	10.0	19.900	82	27.7	8.870
19	-7.2	47.306	51	10.5	19.384	83	28.3	8.659
20	-6.6	46.012	52	11.1	18.881	84	28.8	8.454
21	-6.1	44.754	53	11.6	18.392	85	29.4	8.254

When checking a thermistor probe, first determine the temperature at the probe and find it on this chart, along with the correct ohmmeter reading. If your ohmmeter reading varies from the correct reading, determine whether the difference is acceptable. If a probe is faulty, the difference will be great.

Mix Level Control (Thermistor Units)

The mix level control (P/N X41420) may be used in both 115 volt and 208-240 volt applications. The control has a switch (labeled SW4) that may be changed to 240 volt or 115 volt by placing the switch in the desired position. (See item “A” on page 14.)

Note: The factory default is 240 volts.

CAUTION: If 115 volts are connected to the control and SW4 is in the 240 volt position, the control will not respond to the mix out condition. If 208-240 volts are connected to the control and the SW4 switch is in the 115 volts position, severe damage to the control will take place.

The power hook-ups are located on the side of the control. For proper connection, the terminals are labeled “L1” and “L2”. (See item “B” on the mix level control diagram on page 14.)

Probe terminals are labeled “COM”, “LOW”, and “OUT”. (See item “C” on the mix level control diagram on page 14.)

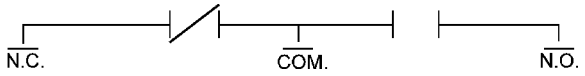
L1 output terminals are labeled “MIX LOW”, and “MIX OUT”. Power supplied to the terminal labeled “L1” is present at the “MIX OUT” terminal when no continuity is established between the “COM” and “OUT” terminals. Power supplied to the terminal labeled “L1” is present at the “MIX LOW” terminal when no continuity is established between the “COM” and “LOW” terminals. When continuity of at least 2K ohms resistance is established between the “COM” and “OUT” terminals, L1 power will no longer be present at the “MIX OUT” terminal.

When continuity of at least 2K ohms resistance is established between the “COM” and “LOW” terminals, L1 power will no longer be present at the “MIX LOW” terminal. (See item D on the mix level control diagram on page 14.)

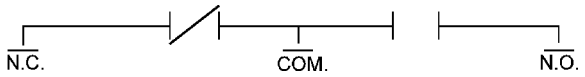
There are two single pole double throw relays on the control. This means there are two sets of three terminals, and the center terminal of each set is the common terminal. Only the “MIX OUT” relay is used in the 430 application.

The following shows the position of the switch in the three possible situations:

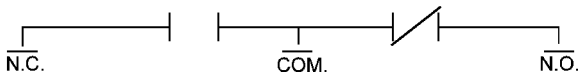
1. No power to the control.



2. Power to the control and ***no continuity*** between the terminals.



3. Power to the control and ***continuity*** between “COM” and “OUT” terminals.

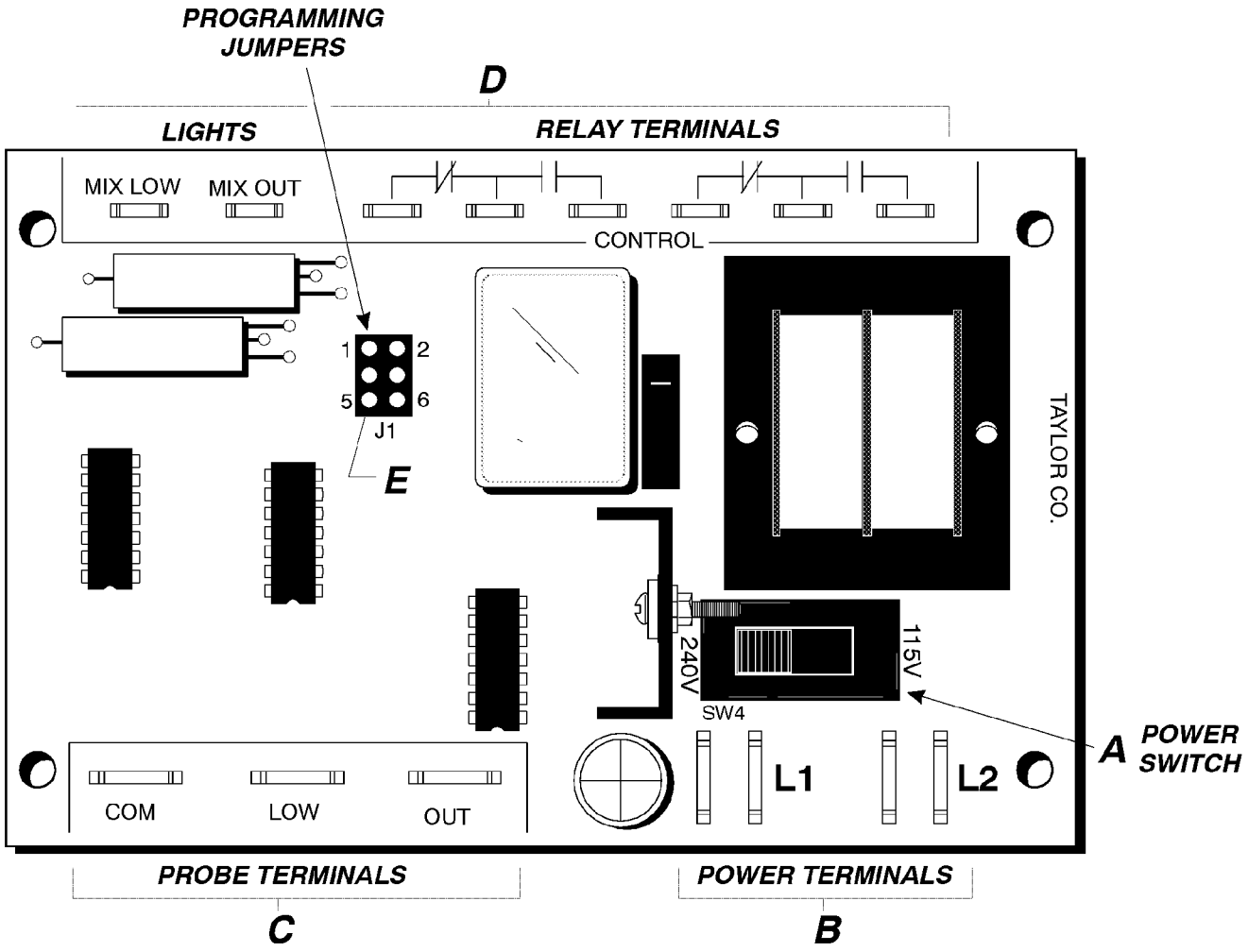


On the mix level control board, there is a block of six pins (item E on the control diagram). This block (labeled J1) is used to allow the L1 power present at the MIX OUT/LOW terminals to stay constant or pulse. (When the power is constant the “MIX OUT/LOW” LED’s will be lit; when the power pulses, the LED’s will flash.)

At the Taylor factory, pins 3 & 5 and 4 & 6 on the J1 terminal are jumped together to create the pulse of power. If pins 1 & 3 or 2 & 4 are jumped together, the power would remain constant. Randomly jumping other pins on the J1 terminal may cause damage.

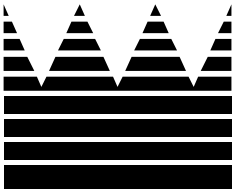
Note: Terminals 1, 3, and 5 are used for the “MIX OUT” feature. Terminals 2, 4, and 6 are used for the “MIX LOW” feature.

Mix Level Control Diagram (Thermistor Units)



PROGRAMMING JUMPER CHART

	SHORT	FUNCTION
1 ●●●	1 & 3	OUT CONTINUOUS
2 ●●●	2 & 4	LOW CONTINUOUS
1 ●●●	3 & 5	OUT BLINKING
2 ●●●	4 & 6	LOW BLINKING



Section 3: Troubleshooting

- **General Troubleshooting Guide**
- **Electrical Troubleshooting Guide**
- **Troubleshooting Torque Components**
- **Troubleshooting Thermistor Components**

General Troubleshooting Guide

PROBLEM	PROBABLE CAUSE	REMEDY
1. No freezer operation with power switch in the “AUTO” position.	a. Unit unplugged.	a. Plug main power cord in the wall receptacle.
	b. Fuse blown or circuit breaker in the “OFF” position.	b. Replace the fuse or place breaker in the “ON” position.
	c. The beater motor is out on reset.	c. Place the control switch in the “OFF” position and press the reset button firmly. Place the power switch in the “WASH” position and observe the freezer’s performance. Resume normal operation.
2. With the power switch in the “AUTO” position, the beater motor runs, but the compressor does not operate.	a. Tripped internal overload in the compressor.	a. Allow the internal overload to cool. Check for high head pressure, refrigerant overcharge, stuck pistons, or tight bearings.
	b. Compressor is burned out.	b. Replace the compressor.
	c. Compressor is improperly wired.	c. Check wiring against diagram on compressor.
	d. Low line voltage.	d. Check the line voltage at terminal block. Locate cause of voltage drop.
	e. Single-phasing compressor contactor.	e. Replace the compressor contactor.
3. Unit short cycles.	a. Cycling on high pressure cut-out. Cut in: 404A: 340 PSI (2,344 kPa.) Cut out: 404A: 440 PSI (3,034 kPa.)	a. Check the water supply (water-cooled units only), and make sure the condenser is clean. Check for potential refrigerant overcharge.
4. Compressor hums intermittently, but will not start. Cycling on overload.	a. Compressor is improperly wired.	a. Check wiring against the diagram.
	b. Low line voltage.	b. Check the main line voltage, and locate voltage drop.
	c. Relay contacts not closing.	c. Check by operating manually. Replace defective relay.
5. Product too stiff.	a. Temperature or viscosity control is set too cold.	a. See the “Thermistor Control” or PCB A. section in this manual to reset the control.
	b. Inadequate mix in the hopper.	b. Fill hopper with mix.
6. Product too soft.	a. Temperature or viscosity control is set too warm.	a. See the “Thermistor Control” or PCB A. section in this manual to reset the control.
7. Head pressure too low.	a. Shortage of refrigerant.	a. Locate and repair leak. Recover the refrigerant, evacuate, and charge the system.
	b. Water valve stuck open (water cooled unit).	b. Clear, or replace the valve.

PROBLEM	PROBABLE CAUSE	REMEDY
8. Hot liquid line.	a. Shortage of refrigerant.	a. Repair leak and recharge system.
9. Frosted liquid line.	a. Restricted dryer or tubing.	a. Replace or remove restrictions.
10. No product being dispensed.	a. Control switch is in the “OFF” position.	a. Place the control switch in the “AUTO” position.
	b. Freeze-up in the mix feed tube.	b. Adjust hopper temperature by readjusting the E.P.R. pressure.
	c. Beater motor is out on reset.	c. Place the control switch in the “OFF” position, and press the reset button firmly. Place the power switch in the “WASH” position and observe the freezer’s performance. Resume normal operation.
	d. Incorrect beater rotation. (Rotation should be clockwise when viewed from the front of the unit.)	d. Reverse any two of the three incoming power lines (three phase units only). For single phase units, the motor must be rewired according to the instructions on the motor.
	e. Circuit breaker out.	e. Check breaker or fuse.
	f. Faulty draw switch.	f. Repair or replace switch.
	g. Inadequate mix in the hopper.	g. Fill the hopper with mix.
11. Scored freezing cylinder walls.	a. Missing or worn front bearing on the freezer door.	a. Install or replace front bearing.
	b. Bent beater assembly.	b. Replace beater and correct the cause of insufficient mix in the freezing cylinder.
12. Product not feeding into the freezing cylinder.	a. Inadequate mix in the hopper.	a. Fill the hopper with mix.
	b. Freeze-up in the mix inlet hole.	b. Adjust hopper temperature.
13. Drive shaft stuck in the drive coupling.	a. Mix and lubricant collected in the drive coupling.	a. Brush clean rear shell bearing area regularly.
	b. Rounded corners of the drive shaft, coupling, or both.	b. Replace worn component(s).
14. Excessive mix leakage through the rear of the unit into the drip pan.	a. Worn or missing drive shaft boot seal.	a. Replace boot seal.
	b. Inadequate lubrication of the drive shaft boot seal.	b. Lubricate the boot seal according to the Operator’s Manual.
	c. Worn rear shell bearing.	c. Replace bearing.
	d. Drive shaft works forward.	d. Check gear alignment and scraper blades. Make sure the beater is not bent.
	e. Wrong type of lubricant being used.	e. Use lubricants recommended in the Operator’s Manual.
15. Beater assembly works forward.	a. Refrigerant shortage.	a. Locate and repair leak.
	b. Rear bearing unit is out of alignment.	b. Align rear bearing unit.

PROBLEM	PROBABLE CAUSE	REMEDY
16. Freezer door works loose.	a. Handscrews are not tightly installed or are damaged.	a. Tighten or replace handscrews.
	b. Beater assembly works forward.	b. See previous problem.
17. Low overrun.	a. Bad scraper blades.	a. Replace blades.
	b. Mix feed tube is not installed.	b. Install feed tube according to instructions in the Operator's Manual.
	c. Beater rotates continually.	c. Check for electrical short or faulty power switch.
	d. Long "ON" cycles.	d. Make sure there is sufficient mix in the hopper and that the condenser is clean. Check the refrigerant charge.
18. Leaking draw valve.	a. Improper lubrication.	a. Lubricate the draw valve according to instructions in the Operator's Manual.
	b. Worn or nicked o-rings on valve.	b. Replace o-rings.
	c. Wrong lubricant being used.	c. Use lubricants recommended in the Operator's Manual.
19. Mix in the hopper is too cold.	a. Temperature is out of adjustment.	a. Adjust E.P.R. valve.
20. Mix in the hopper is too warm.	a. Temperature is out of adjustment.	a. Adjust E.P.R. valve.
	b. Warm mix has been put in the hopper.	b. Mix added to the hopper should be below 40°F. (4°C.)
	c. Hopper cover not in position.	c. Install cover properly.
21. Compressor runs too long or continuously.	a. Low refrigerant charge.	a. Locate and repair the refrigerant leak.
	b. Worn or missing scraper blades.	b. Replace scraper blades.
	c. Inadequate air clearance.	c. Provide 6" (15.2 cm.) around all sides of the unit.
	d. Incorrect beater rotation.	d. Rotation should be counter-clockwise.
	e. Faulty expansion valve.	e. Replace valve.
	f. Dirty or faulty fan assembly.	f. Clean, repair or replace the fan assembly.

Electrical Troubleshooting Guide

Following are the paths of power necessary for component operation on **Torque Control units**.

"WASH" Mode

Beater Motor: L1 – beater motor overload switch – compressor high limit switch – power switch ("WASH" position) – beater motor contactor coil.

Note: If the beater motor operates in the "WASH" mode but there are no functions in the "AUTO" mode, check the fuse on the control board labeled "F1." (This fuse is located at the left side of the transformer on the control board.)

"AUTO" Mode

Beater Motor: L1 – beater motor overload switch – compressor high limit switch – printed circuit board assembly (com. and beater) – beater motor contactor coil.

Compressor: L1 – beater motor overload switch – compressor high limit switch – power switch ("AUTO" position) – the printed circuit board assembly (com. and N.O. cprsr) – compressor contactor coil.

Following are the paths of power necessary for component operation on **Thermistor Control units**.

"WASH" Mode

Beater Motor: L1 – beater motor overload switch – compressor high limit switch – power switch ("WASH" position) – beater motor contactor coil.

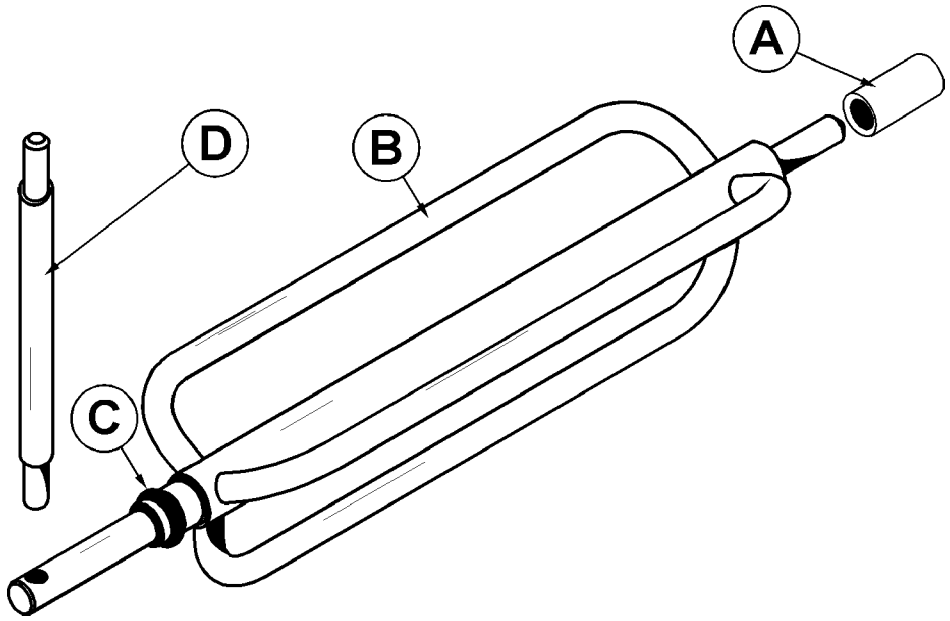
Note: If the beater motor operates in the "WASH" mode but there are no functions in the "AUTO" mode, check the fuse on the control board labeled "F1." (This fuse is located at the left side of the transformer on the control board.)

"AUTO" Mode

Beater Motor: L1 – load side of the compressor contactor – beater motor contactor coil.

Compressor: L1 – beater motor overload switch – compressor high limit switch – power switch ("AUTO" position) – mix level control – thermistor control – compressor contactor coil.

Troubleshooting Torque Components



A. A missing or worn guide bearing will cause uneven movement of the rotor system, and will result in product inconsistencies (too stiff/too thin). If product becomes too stiff, the door, torque arm, torque rotor and torque lever may be damaged.

B. Any distortion or incorrect assembly of the torque rotor will damage the torque components.

C. If incorrectly sized, damaged or improperly lubricated o-rings are used, the rotor, door, torque arm, torque rotor and torque lever may be damaged.

D. If the torque arm is missing, the product will freeze and the pulley belt will begin slipping. The beater reset will then deactivate freezer operation. In addition, torque components may be damaged.

Troubleshooting Thermistor Components

Step 1
Power Switch in the "AUTO" Position

Using a voltmeter, check the two terminals connecting the transformer wires to the controller. There should be a reading of 24 volts (±15%); if not, the transformer is not receiving line voltage or the transformer is faulty and should be replaced. If a proper reading is obtained, proceed to the next step.

Step 2
Power Switch in the "AUTO" Position

Using a voltmeter, make certain L1 power is being supplied to the common terminal of the controller. A reading of line voltage should be obtained. To accomplish this, measure voltage between the common terminal and any L2 power source. If a proper reading is not obtained, make sure there is line voltage at the incoming power supply. If there is incoming power, back track from the common terminal (L1) and determine where L1 is being interrupted and correct accordingly. If a proper reading is obtained, proceed to the next step.

Step 3
Power Switch in the "AUTO" Position

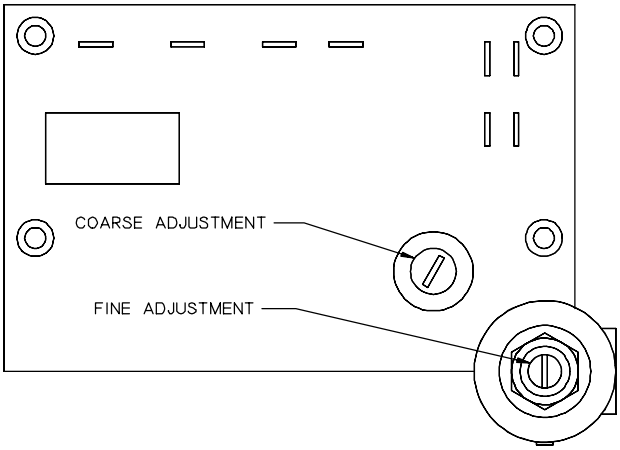
Remove the probe wires from the controller. Place a wire between the two probe terminals of the controller to short the component. This should activate the compressor. If this procedure does not activate the compressor, check for line voltage. If there is line voltage at the compressor contactor coil, the controller is acceptable.

Step 4
Power Switch in the "OFF" Position

Check the probe resistance. Disconnect both the white (yellow) and black wires at the control, and measure their resistance with an ohmmeter. At room temperature, a reading of approximately 10,000 ohms should be obtained. At serving temperature, a reading of approximately 46,000 ohms should be obtained. If this reading is not obtained, replace the probe. When replacing the probe, fill the bulb-well with antifreeze. Connect the white (yellow) wire to the white terminal and the black wire to the black terminal.

Step 5
Power Switch in the "OFF" Position

Check the anticipator microswitch by removing the wires connecting the switch to the controller, and check for continuity. If switch continuity exists when the draw handle is raised, the switch is effective. Continuity should break when the draw handle is lowered.



Notes:

Section 4: Parts

- **Parts Warranty Explanation**
- **Operator Parts Identification**
- **Exploded Views**
- **Complete Parts List**
- **Wiring Diagrams**

Parts Warranty Explanation

Class 103 Parts:	Warranty is extended 1 year from the original date of freezer installation.
Class 000 Parts:	Wear Items - no warranty.
Beater Motor:	Warranty is extended two years from the original date of freezer installation.
Freezing Cylinder:	This item is covered five years from the original date of installation.
Compressor:	This item is covered five years from the original date of installation.

CAUTION: Warranty is valid only if required service work is provided by an Authorized Taylor Service Technician.

NOTE: Taylor reserves the right to deny warranty claims on equipment or parts if a non-approved refrigerant was installed in the machine, system modifications were performed beyond factory recommendations, or it is determined that the failure was caused by neglect or abuse.

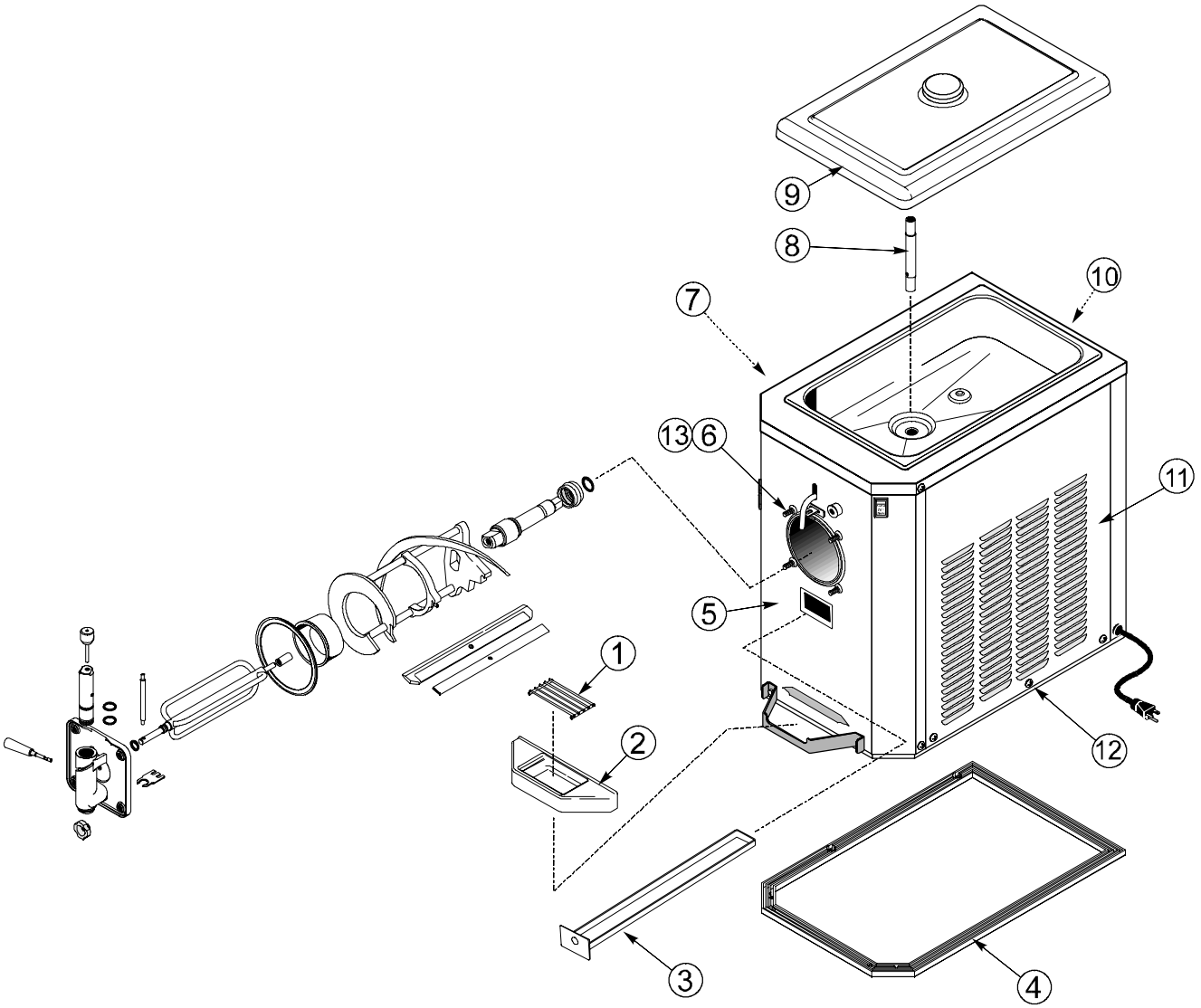
Compressor Warranty Disclaimer

The refrigeration compressor on this machine is warranted for the term indicated on the warranty card accompanying this machine. However, due to the Montreal Protocol and the U.S. Clean Air Act Amendments of 1990, many new refrigerants are being tested and developed; thus seeking their way into the service industry. Some of these new refrigerants are being advertised as drop-in replacements for numerous applications. It should be noted that, in the event of ordinary service to this machine's refrigeration system, only the refrigerant specified on the affixed data label should be used. The unauthorized use of alternate refrigerants will void your compressor warranty. It will be the owners' responsibility to make this fact known to any technicians they employ.

It should be noted, that Taylor does not warrant the refrigerant used in its equipment. For example, if the refrigerant is lost during the course of ordinary service to this machine, Taylor has no obligation to either supply or provide its replacement either at billable or unbillable terms. Taylor does have the obligation to recommend a suitable replacement if the original refrigerant is banned, obsoleted, or no longer available during the five year warranty of the compressor.

The Taylor Company will continue to monitor the industry and test new alternates as they are being developed. Should a new alternate prove, through our testing, that it would be accepted as a drop-in replacement, then the above disclaimer would become null and void. To find out the current status of an alternate refrigerant as it relates to your compressor, call the local Taylor Distributor or the Taylor Factory. Be prepared to provide the model/serial number of the unit in question.

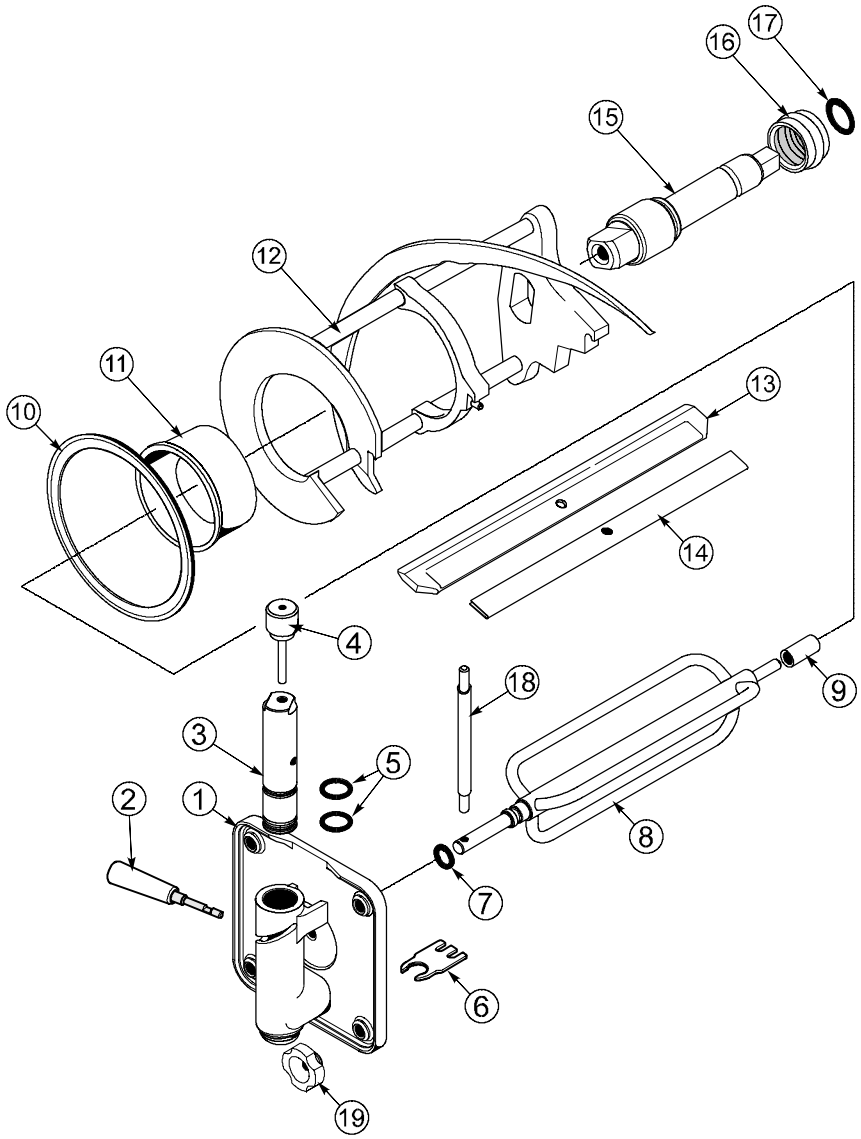
Operator Parts Identification



Item	Description	Part Number
1	Shield-Splash	049320
2	Tray-Drip	049319
3	Pan-Drip 17-1/4 Long	027504
4	Gasket-Base Pan	049420
5	Panel A.-Front	X50678
6	Stud-Nose Cone	013496
7	Panel-Side Left	049639

Item	Description	Part Number
8	Tube-Feed 13/32 Hole	025663-10
9	Cover A.-Black Insulated	X49679-BLA
10	Panel-Back	049325
11	Panel-Side Right	049640
12	Screw-Panel 10-32 x 3/8	024298
13	Washer-Freezer Stud	049032

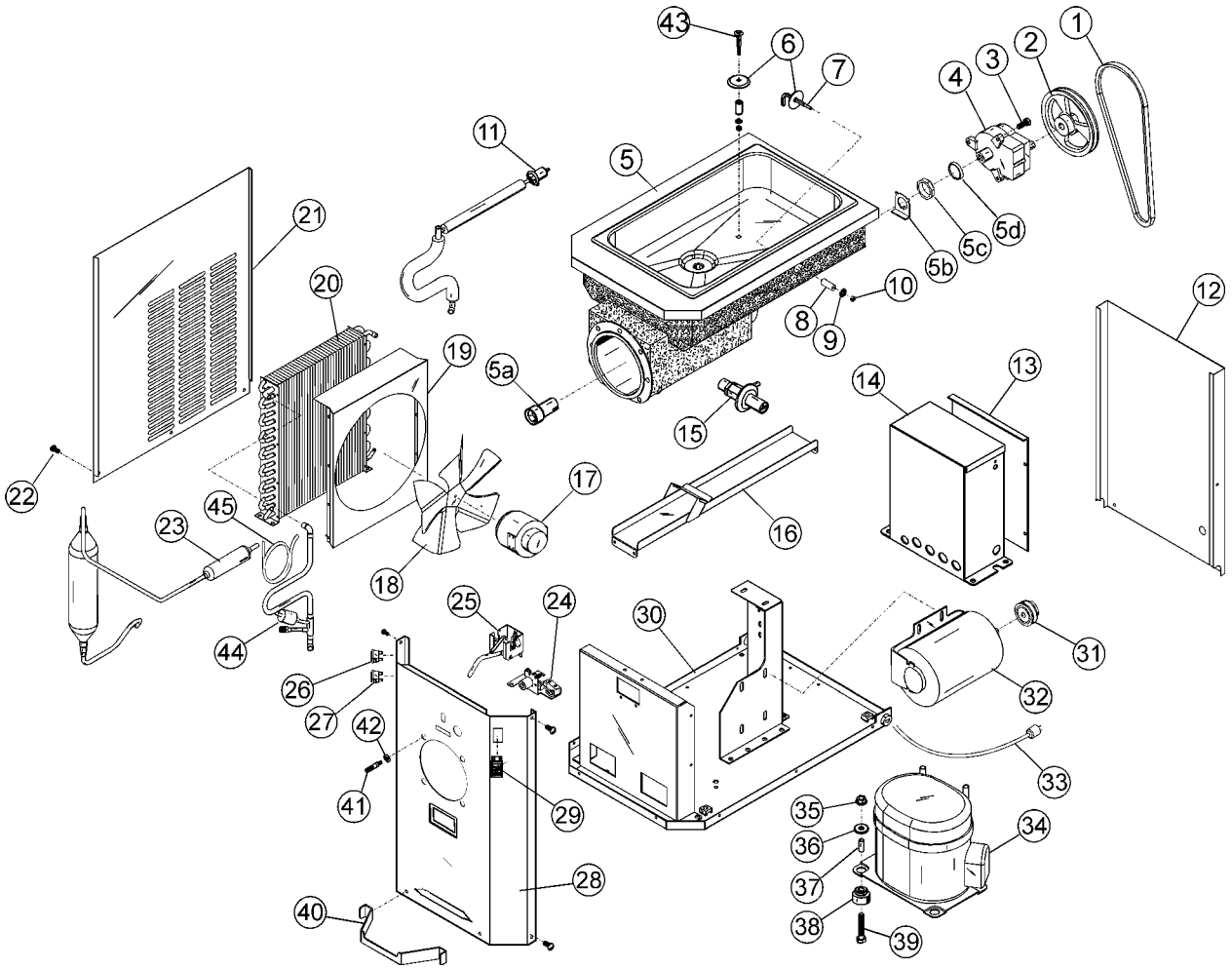
Door Assembly



Item	Description	Part Number
1	Door A.-Partial	X39248
2	Handle A.-Draw	X47384
3	Valve-Draw	047734
4	Valve A.-Handle Pin	X25929
5	O-Ring - 1 OD x .139 W	032504
6	Buster-Ice	047735
7	O-Ring - .291 ID x .080 W	018550
8	Torque Assembly	X50382
9	Bearing-Guide	014496
10	Gasket-Door 5.109 ID x 5.630	014030

Item	Description	Part Number
11	Bearing-Front	013116
12	Beater A.-4 Qt. 1 Pin Support	X49490
13	Blade-Scraper-Plastic	046237
14	Clip-Scraper Blade	046238
15	Shaft-Beater	035418
16	Seal-Drive Shaft	032560
17	O-Ring 7/8 OD x .139 W	025307
18	Arm-Torque	025660
19	Nut-Stud	029880

Model 430 Exploded View



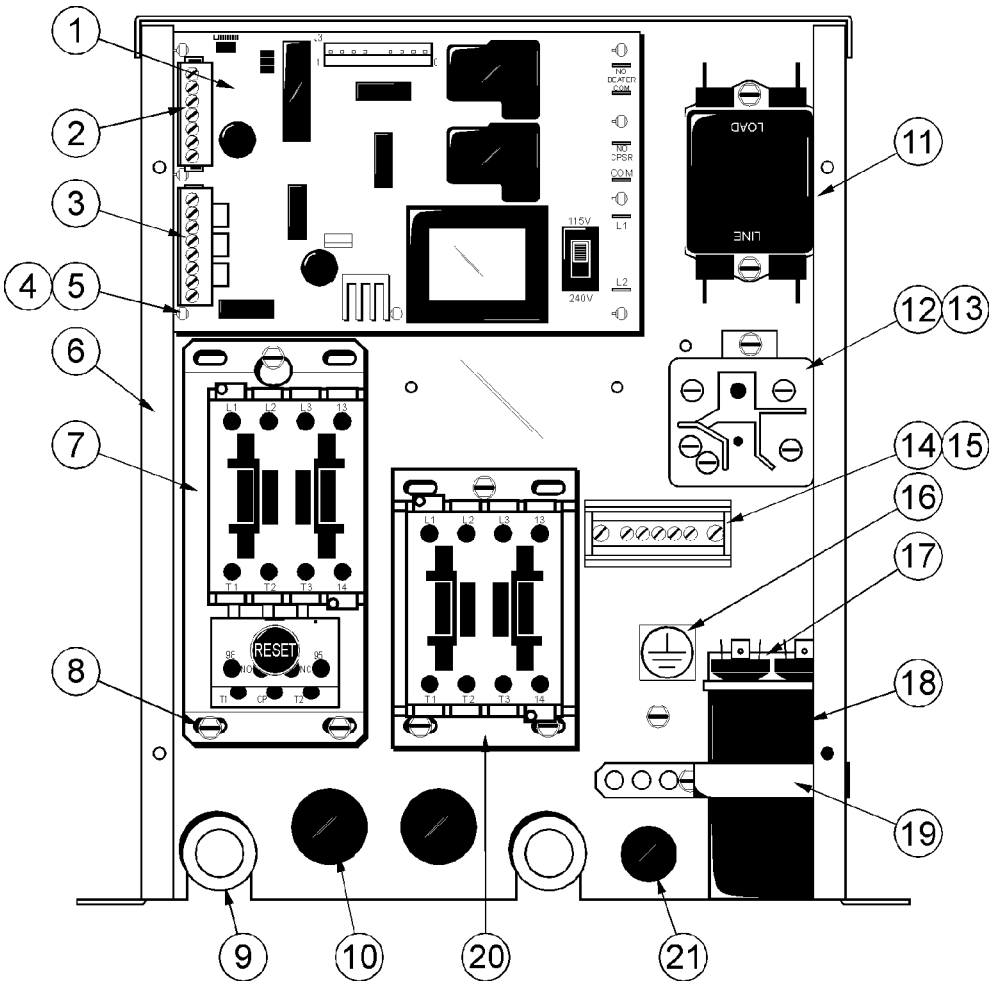
Model 430 Exploded View Parts Identification List

Item	Description	Part No.
1	Belt-V 4L350	004194
2	Pulley-AK-49	051394
3	Screw-5/16-18 x 5/8 MF Hex Cap	017326
4	Gear A.-Reducer	015985
5	Shell A.-Insulated	X50392
5a	Bearing-Rear Shell-Plastic	032511
5b	Guide-Drip Seal	028992
5c	Nut-Brass Bearing	028991
5d	O-Ring - 1-1/16 OD x .070 Wall	018432
6	Disc-Probe (Square Hole)	030965
7	Probe A.-Mix Low-HT	X42077
8	Spacer-Probe (Square Hole)	030966
9	Washer-#10 Shakeproof	002681
10	Nut-10-32 Hex	005598
11	Valve-EPR 1/4 S	022665
12	Panel-Back	049325
13	Cover-Control Box	049321
14	Control A. (See page 29.)	X50663-12
15	Valve-Exp-Auto 1/4 S x 1/4 FPT	047232
16	Guide A.-Drip Pan	X49327
17	Motor-Fan 50 Watt	029770-
18	Fan-5 Blade 12	049009
19	Shroud-Fan	048877
20	Condenser-AC 12 L x 16 H x 2.5 T (3 Row)	048935
21	Panel-Side Left	049639
*21a	Panel-Side Right	049640
22	Screw-10-32 x 3/8 Truss Hd SS	024298

Item	Description	Part No.
23	Dryer-Filter 1/4 x 1/4 Solder	048878
24	Switch A.-Torque (See page 31.)	X50895-SER
25	Switch-Draw (See page 30.)	N/A
26	Light-Add Mix-Amber 12 VDC	047141-02
27	Light-Mix Out-Amber 12 VAC	047142-02
28	Panel A.-Front	X50678
29	Switch-Rocker Auto/Wash	048420
30	Frame Assembly	N/A
*30a	Pan-Base	049329
*30b	Support-Shell Front	049330
*30c	Support-Shell Rear	049331
31	Pulley-AK27-1/2	016190
32	Motor-1/4 HP	014477-
33	Cord-Power 125V (115 Volt)	085093
	Cord-Power (208-230 Volt)	025340-27
34	Compressor	049302-
35	Nut-5/16-18 MF Lock	017327
36	Washer-3/8 Flat ZP Steel	000653
37	Sleeve-Mounting-Compressor	039920
38	Grommet-Compressor Mount	039919
39	Screw-5/16-18 x 1-1/2 Hex Cap	001894
40	Support-Drip Tray	049318
41	Stud-Nose Cone 5/16-18 x 5/16	013496
42	Washer-Freezer Stud	049032
43	Probe A.-Mix Out - Square Hole	X41348
*44	Switch-Pressure 440 PSI	048230
*45	Tube-Capillary	051049

*Not Shown

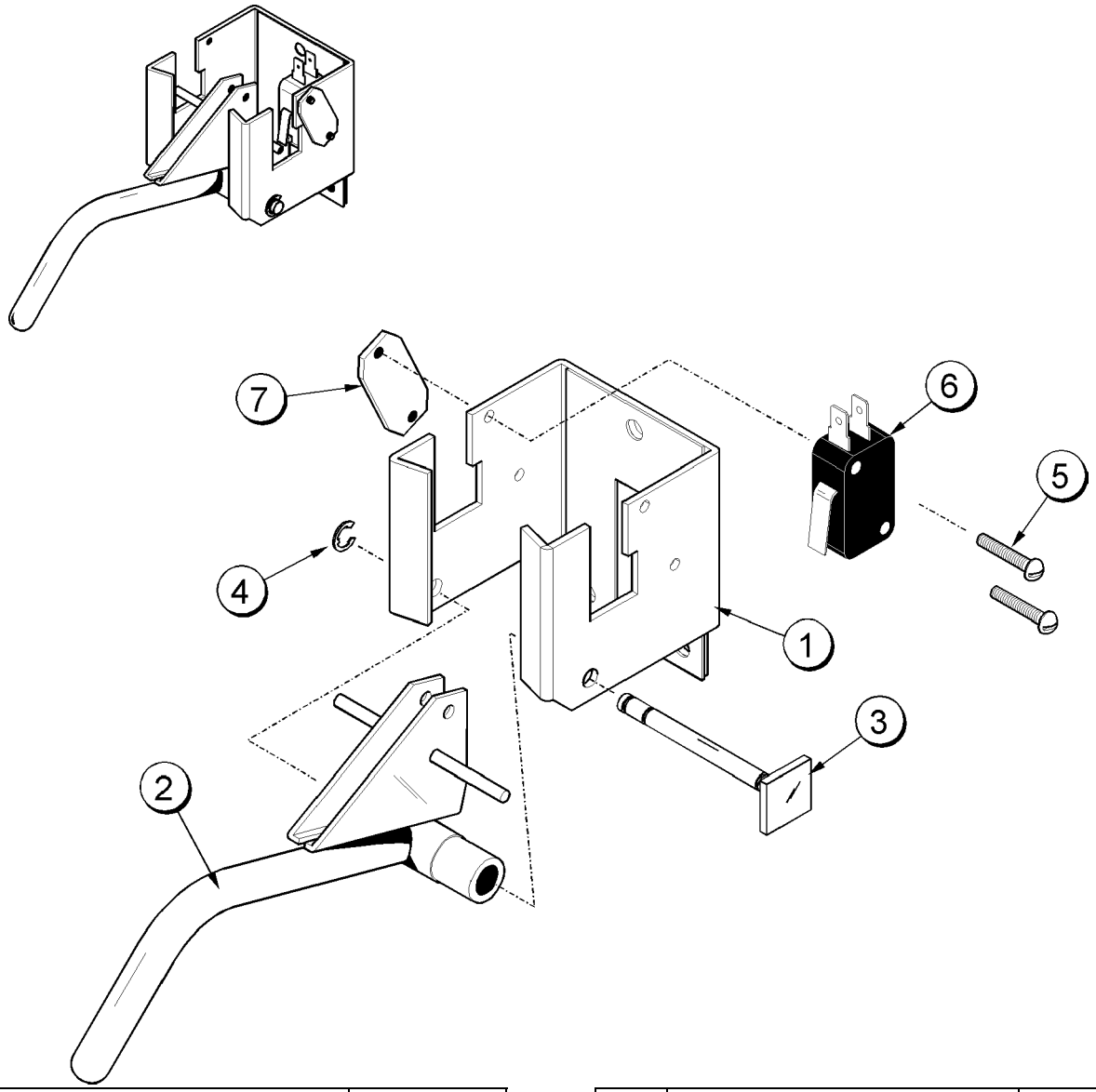
Control Box Exploded View (X50663-12)



Item	Description	Part No.
1	PCB A.-Control *430 Torque	X50385-SER
2	Block-Terminal-Plug 7 P	040322-003
3	Block-Terminal-Plug 8 P	040322-004
4	Standoff-Nylon 6-32 x 3/8 L	040280-008
5	Screw- 6-32 x 3/8 Bin. Hd	002201
6	Box-Control *430*	049317
7	Starter-1 Phase 3 to 5 Amp	041950-
8	Screw-8 x 1/4 SL Hex Hd	009894
9	Bushing-Split 43/64 ID x 7/8 OD	027691
10	Plug-Hole 7/8 Dia.	010077
11	Filter-Corcom 2VR1	032567
12	Relay-Start-Compressor (115 V)	045432-12
	Relay-Start-Compressor (230 V)	048150

Item	Description	Part No.
13	Screw 8-32 x 5/16 Bind. Hd	008399
14	Block-Terminal 7 Pole Green	024156
15	Screw 8 x 1/2 Pan Hd.	017986
16	Label-Grounding Symbol	017669
17	Capacitor-Start (115 Volt)	039557-27
	Capacitor-Start (230 Volt)	039567
18	Capacitor-Run (115 Volt)	023739
	Capacitor-Run (230 Volt)	027087
19	Strap-Capacitor 6-5/8 In.	037890
20	Relay-3 Pole 115 V	012725-
21	Plug-Hole 3/4 Dia. Black Nylon	078018

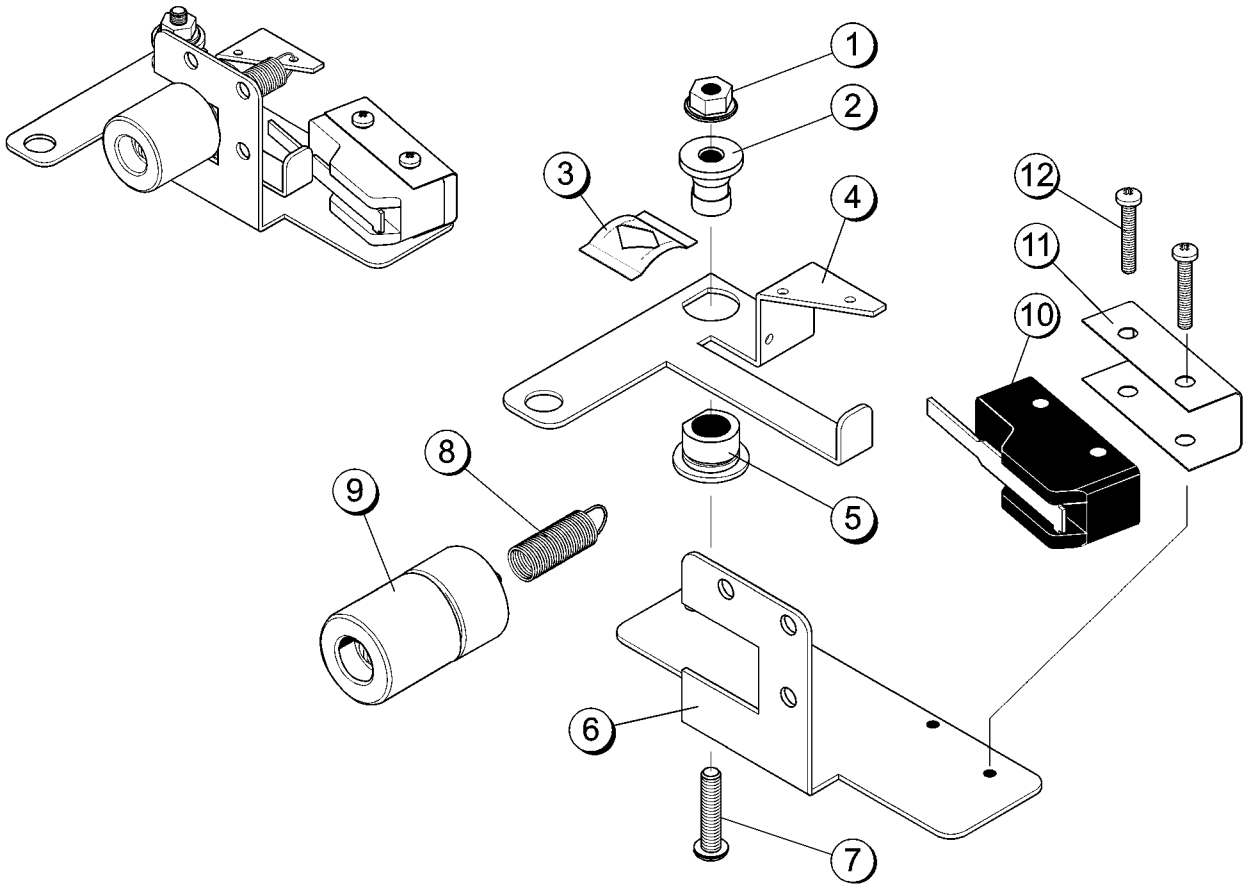
Draw Switch Assembly



Item	Description	Part No.
1	Bracket A.-Draw Switch	X50497
2	Arm A.-Draw Valve *430* Torque	X50389
3	Pin-Pivot	015478
4	E-Ring 3/16 .335 OD	049178

Item	Description	Part No.
5	Screw 4-40 x 5/8 RHM	027219
6	Switch-Lever-SPDT 10A-125-25	028889
7	Plate-Draw Switch	043527

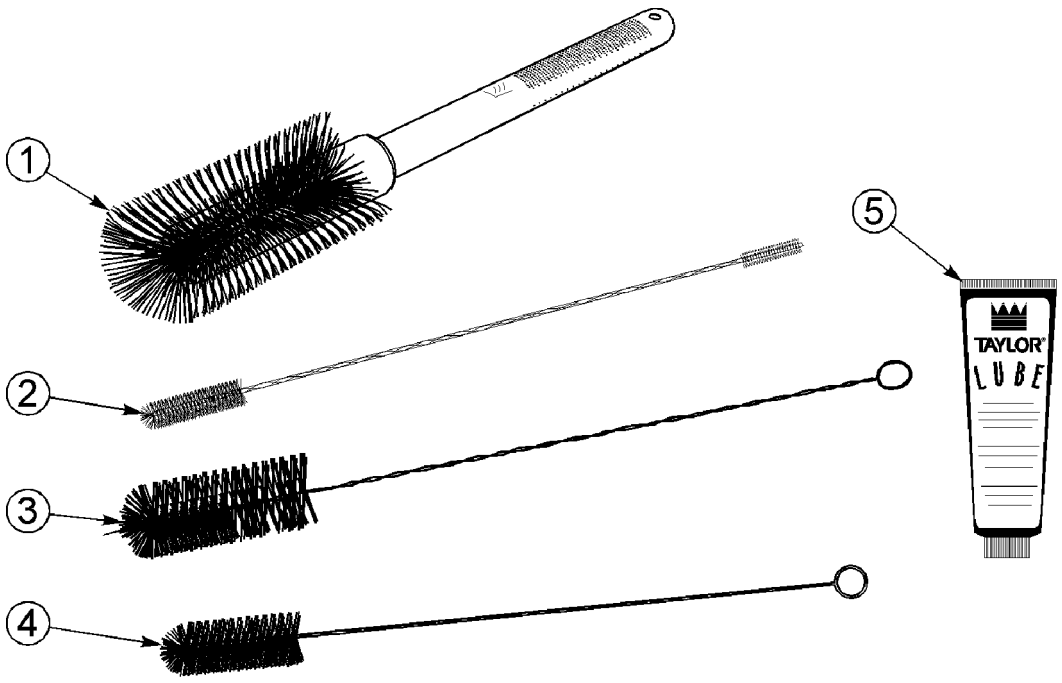
Torque Switch Assembly



Item	Description	Part No.
1	Nut-10-32 MF Lock	020983
2	Bushing-Pivot-Torque Arm	049739
3	Nut-Push On	051288
4	Arm-Torque Switch	051325
5	Bushing-Arm-Torque	049737
6	Bracket-Torque Control	050400

Item	Description	Part No.
7	Screw-10-32 x 1 RHM ZP Steel	004455
8	Spring-Torque (White)	050901
9	Bushing A.-Torque	X50399-SER
10	Switch-Snap-SPDT 20A/125-250	014472
11	Insulator-Armite-4 Hole	012992
12	Screw-6-32 x 79 Taptite Rd. Hd.	042514

Accessories



Item	Description	Part Number
1	Brush-3 x 7 White	023316
2	Brush-Double Ended	013072
3	Brush-Draw Valve	014753

Item	Description	Part Number
4	Brush-Rear Bearing	013071
5	Lubricant-Taylor	047518
*6	Video-Training M430 Torque	050987-V

*Not Shown

430 Torque

DESCRIPTION	PART NUMBER	QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
ACCUMULATOR-COPPER 2"DIA 10"LG	047062	1	103		
ARM-TORQUE *450*350-1 HD SLUSH	025660	1	103		
+BUSHING-ARM-TORQUE	049030	1	103		
BEARING-FRONT	013116	1	000		
BEARING-GUIDE	014496	1	000		
BEARING-REAR SHELL *PLASTIC*	032511	1	000		
+GUIDE-DRIP SEAL	028992	1	000		
+NUT-BRASS BEARING	028991	1	000		
+WASHER-BEARING LOCK	012864	1	000		
BEATER A.-4QT-1 PIN-SUPPORT	X49490	1	103		
+BLADE-SCRAPER-PLASTIC 9-13/16L	046237	1	000		
+CLIP-SCRAPER BLADE*8.75 INCH*	046238	1	103		
BELT-V-4L370	004227	1	000	Prior to J7050000	116
BELT-V-4L350	004194	1	000	J7050000/Up (Replaces 003845)	118
BLOCK-TERMINAL-7 POLE GREEN	024156	1	103		
BLOCK-TERMINAL-PLUG 7P .2 SIP	040322-003	1	103		
BLOCK-TERMINAL-PLUG 8P .2 SIP	040322-004	1	103		
BRUSH-DOUBLE ENDED-PUMP&FEED T	013072	1	000		
BRUSH-DRAW VALVE 1-1/2"OD X 3"	014753	1	000		
BRUSH-MIX PUMP BODY-3"X7"WHITE	023316	1	000		
BRUSH-REAR BRG 1IN.DX2IN.LGX14	013071	1	000		
BRUSH-SYRUP PORT	045079	1	000		
COMPRESSOR AKA9462ZXA-AK172AT	049302-12	1	512	115/60/1	
+CAPACITOR-RUN- 25UF/370VAC	023739	1	103	115/60/1	
+CAPACITOR-START- 72-88UF/250V	039557-27	1	103	115/60/1	
+RELAY-START-COMPRESSOR	045432-12	1	103	115/60/1	
COMPRESSOR AKA9462ZXD-AK172ET	049302-27	1	512	208-230/60/1	
+CAPACITOR-RUN- 15UF/370V	027087	1	103	208-230/60/1	
+CAPACITOR-START- 72-88UF/330V	039567	1	103	208-230/60/1	
+RELAY-START-COMPRESSOR	048150	1	103	208-230/60/1	
CONDENSER-AC-12LX16HX2.5T3ROW	048935	1	103		
CORD-POWER-125V NEMA 5-20 P - 6' L	085093	1	103	115/60/1	

+ Available Separately

+ Available Separately

DESCRIPTION	PART NUMBER	QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
CORD-POWER-230V 15A PLUG-75"L	025340-27	1	103	208-230/60/1	
COVER A.-BLACK INS.MIX HOPPER	X49679-BLA	1	103		
COVER-HOLE-DRAW HANDLE *430*	050499	1	103		
DECAL-CAUTION-GRD-CIRCUIT	039992	1	000		
DECAL-CLEAN INST.-HOPPER	019029	1	000		
DECAL-DEC- 430 - TORQUE	050685	1	000		
DECAL-TROUBLESHOOTING	038374	1	000		
DIAGRAM-WIRING*430*TORQUE	050367-	1	000		
DOOR A.-PARTIAL *430*	X39248	1	103		
+BUSTER-ICE	047735	1	103		
+HANDLE A.-DRAW-SLUSH-BLACK	X47384	1	103		
+VALVE A.-HANDLE PIN	X25929	1	103		
+VALVE-DRAW *SLUSH* ICE BUSTER	047734	1	103		
+O-RING-1"OD X .139W	032504	2	000		
DRYER-FILTER 1/4 X 1/4 SOLDER	048878	1	000		
EYELET-RESET BUTTON	013739	1	000		
FILTER-CORCOM 2VR1	032567	1	103		
GASKET-BASE PAN *430*	049420	1	000		
GASKET-DOOR 5.109"ID X 5.630OD	014030	1	000		
GASKET-FRONT PANEL	049031	1	000		
GEAR A.*REDUCER	015985	1	212		
GUIDE A.-DRIP PAN *430*	X49327	1	103		
KIT A.-TUNE UP* 430	X39969	1	000		
BEARING-FRONT	013116	1	000		
BEARING-GUIDE	014496	1	000	TORQUE	
GASKET-DOOR 5.109"ID X 5.630OD	014030	1	000		
O-RING 1 'OD X .139W	032504	2	000	DRAW VALVE	
O-RING-.291 ID X .080W	018550	1	000	TORQUE	
O-RING-7/8 OD X .139W	025307	1	000	DRIVE SHAFT	
SEAL-DRIVE SHAFT	032560	1	000	DRIVE SHAFT	
TOOL-CLEANING 0-RING REMOVAL	048260	1	000		
LABEL-DOOR CAUTION	032749	1	000		
LABEL-MOVING PARTS WARN	024315	3	000		

+ Available Separately

DESCRIPTION	PART NUMBER	QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
LABEL-WARNING PANEL	036529	3	000		
LIGHT-ADD MIX-AMBER-RECTANGULR	047141-02	1	103		
LIGHT-MIX OUT-AMBER-RECT.	047142-02	1	103		
LINE A.-LIQUID *430*	X49495	1	103	Tee w/Capillary Tube	
TUBE-CAP..036IDX.087OD X 9 FT.	051049	1	103		
LUBRICANT-TAYLOR 4 OZ.	047518	1	000		
MANUAL-OPERATOR	051430-M	1	000		
MOTOR-1/4 HP	014477-	1	212		
MOTOR-FAN 50 WATT	029770-	1	103		
+FAN-5 BLADE 12" PUSH 22DEG CCW	049009	1	103		
NUT-STUD *340-342-344-350-450*	029880	4	103		
PAIL-MIX 6 QT.	023348	1	000		
PAIL-MIX 10 QT.-LABELED	050363	1	000		
PAN-DRIP 17-1/4"LONG	027504	1	103		
PANEL-A.-FRONT	X50678	1	103		
PANEL-REAR	049325	1	103		
PANEL-SIDE LEFT	049639	1	103	Left	
PANEL-SIDE RIGHT	049640	1	103	Right	
PCB A.-CONTROL *430 TORQUE	X50385-SER	1	212		
CHIP-SOFTWARE 430 TORQUE CTRL	X40868	1	103	Version 114 - J7043493/Up	
PCB A.-CONTROL *430*	X50207-SER	1	212	Base Board	
PLUG-HOLE 1/2	049775	1	103	For X50399-SER Bushing (Replaces 034878)	
PROBE A.-MIX LOW-HT	X42077	1	103	Mix Low	
PROBE A.-MIX OUT-SQUARE HOLE	X41348	1	103	Mix Out	
+DISC-PROBE *SQ HOLE*	030965	2	103		
+SPACER-PROBE *SQ HOLE*	030966	2	103		
PULLEY-AK23-1/2	013997	1	103	Beater Motor (Prior to J7050000)	116
PULLEY-AK27-1/2	016190	1	103	Beater Motor (J7050000/Up)	116
PULLEY-AK64-5/8	007538	1	103	Gear (Prior to J7050000)	116
PULLEY-AK49	051394	1	103	Gear (J7050000/Up)	116
RELAY-3 POLE	012725-	1	103		
SANITIZER KAY-5 125 PACKETS	041082	1	000		
SHAFT-BEATER *341-2 RFB*	035418	1	103		

+ Available Separately

DESCRIPTION	PART NUMBER	QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
+O-RING-7/8 OD X .139W	025307	1	000		
+SEAL-DRIVE SHAFT	032560	1	000		
SHELL A.-INSULATED*430*LOCKOUT	X50392	1	512		
+STUD-NOSE CONE-5/16-18X5/16-18	013496	4	103		
+WASHER-FREEZER STUD *RD30*	049032	4	000		
SHIELD-SPLASH *430*	049320	1	103		
SHROUD-FAN *142*	048877	1	103		
STARTER-1 PHASE-3 TO 5 AMP	041950-12J	1	103	115/60/1	
STARTER-1 PHASE-2 TO 3.3 AMP	041950-27H	1	103	208-230/60/1	
SWITCH A.-DRAW				Not available as assembly.	
+ARM A.-DRAW VALVE*430*TORQUE	X50389	1	103		
+BRACKET A.-DRAW SWITCH *430*	X50497	1	103		
+E-RING 3/16 .335 O.D.	049178	1	000		
+PIN-PIVOT	015478	1	103		
+PLATE-DRAW SWITCH *452 HT*	043527	1	103		
+SWITCH-LEVER-SPDT-10A-125-250V	028889	1	103		
SWITCH A.-TORQUE *430*	X50895-SER	1	103	J7050000/Up - Replaces X50397-SER (spring change from 050455 to 050901)	116
ARM-TORQUE SWITCH	051325	1	103		
BRACKET-TORQUE CONTROL	050400	1	103		
BUSHING A.-TORQUE	X50399-SER	1	103	Bushing Plug 049775	
BUSHING-ARM-TORQUE	049737	1	103		
BUSHING-PIVOT-TORQUE ARM	049739	1	103		
NUT-PUSH ON - 9/16 DIAMETER SHAFT	051288	1	000		
SPRING-TORQUE*PURPLE*	050455	1	103	Prior To J7050000	116
SPRING-TORQUE*WHITE*	050901	1	103	J7050000/UP (Replaces 050455)	116
SWITCH-SNAP-SPDT-20A/125-250V	014472	1	103		
SWITCH-PRESSURE 440 PSI-SOLDER	048230	1	103		
SWITCH-ROCKER AUTO/WASH	048420	1	103		
+SEAL-PANEL-ROCKER SWITCH	048421	1	000		
TORQUE A. *430*	X50382	1	103		
+O-RING-.291 ID X .080W	018550	1	000		
TRAY-DRIP *430*	049319	1	103		

+ Available Separately

DESCRIPTION	PART NUMBER	QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
TUBE-MIX FEED -9/32" HOLE	025663-6	1	103	Prior to J7050000	116
TUBE-MIX FEED -13/32" HOLE	025663-10	1	103	J7050000/Up	116
VALVE-ACCESS 1/4FL X 1/4SOLDER	044404	2	103		
VALVE-ACCESS 1/4FL X 3/8SDR-90	044455	1	103		
VALVE-EPR 1/4S	022665	1	103		
VALVE-EXP-AUTO-1/4S X 1/4FPT	047232	1	103		
+BOOT-EXPANSION VALVE	027137	1	000		
VIDEO-TRAIN FILM M430 TORQUE	050987-V	1	000		
50 Hz					
COMPRESSOR AKA9462ZXC-AK172JT	049302-40	1	512	220-240/50/1	
+CAPACITOR-RUN- 15UF/370V	027087	1	103	220-240/50/1	
+CAPACITOR-START- 72-88UF/330V	039567	1	103	220-240/50/1	
+RELAY-START-COMPRESSOR	041064	1	103	220-240/50/1	
PULLEY-AK27-1/2	016190	1	103	220-240/50/1	
STARTER-1 PHASE 2 TO 3.3 AMP	041950-27H	1	103	220-240/50/1	
GENERIC PANELS					
CHANNEL-C-430 FLAVOR	050706	1	103		
DECAL-DEC-430-FLAVOR SET OF 4	050704	1	103		
PANEL-A.-FRONT *430*TORQUE GEN	X50678-GEN	1	103		
PANEL-SIDE L*430* GENERIC	049639-GEN	1	103		
PANEL-SIDE R*430*	049640-GEN	1	103		

+ Available Separately

430 Thermistor

DESCRIPTION	PART NUMBER	QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
ACCUMULATOR-COPPER 2”DIA 10”LG	047062	2	103		
BEARING-FRONT	013116	1	000		
BEARING-REAR SHELL *NICK.PLATE	031324	1	000		
+GUIDE-DRIP SEAL	028992	1	000		
+NUT-BRASS BEARING	028991	1	000		
+O-RING-1/2OD X .070W	024278	2	000		
+WASHER-BEARING LOCK	012864	1	000		
BEATER A.-4QT-1 PIN-SUPPORT	X49490	1	103		
+BLADE-SCRAPER-PLASTIC 9-13/16L	046237	1	000		
+CLIP-SCRAPER BLADE	046238	1	103		
BELT-4L370	004227	1	000		
BRUSH-DRAW VALVE 1-1/2”OD X 3”	014753	1	000		
BRUSH-DRAW VALVE 1-1/2”OD X 3”	014753	1	000		
BRUSH-MIX PUMP BODY-3”X7”WHITE	023316	1	000		
BRUSH-REAR BRG 1IN.DX2IN.LGX14	013071	1	000		
COMPRESSOR AKA9462ZXA	049302-	1	512	J6012956/UP	101
COMPRESSOR AK9462Z	048628-	1	512	J6012954/PRIOR	101
+CAPACITOR-RUN- 25UF/370VAC	023739	1	103		
+CAPACITOR-START- 72-88UF/250V	039557-27	1	103		
+RELAY-START-COMPRESSOR	045432-12	1	103		
+GROMMET-COMPRESSOR MOUNT-AE-AK	039919	4	000		
+SLEEVE-MOUNTING-COMP-AE	039920	4	000		
CONDENSER-AC-12LX16HX2.5T3ROW	048935	1	103		
CONTROL-THERMISTOR	X46015-SER	1	103		
CORD-POWER-115V 20A PLUG-77”L	085093	1	103	115 VOLT	
COVER A.-HOPPER	X49679-BLA	1	103		
DECAL-CAUTION-GRD-CIRCUIT	039992	1	000		
DECAL-CLEAN INST.-HOPPER	019029	1	000		
DECAL-DEC-TAYLOR-430	049595	1	000		

+ Available Separately

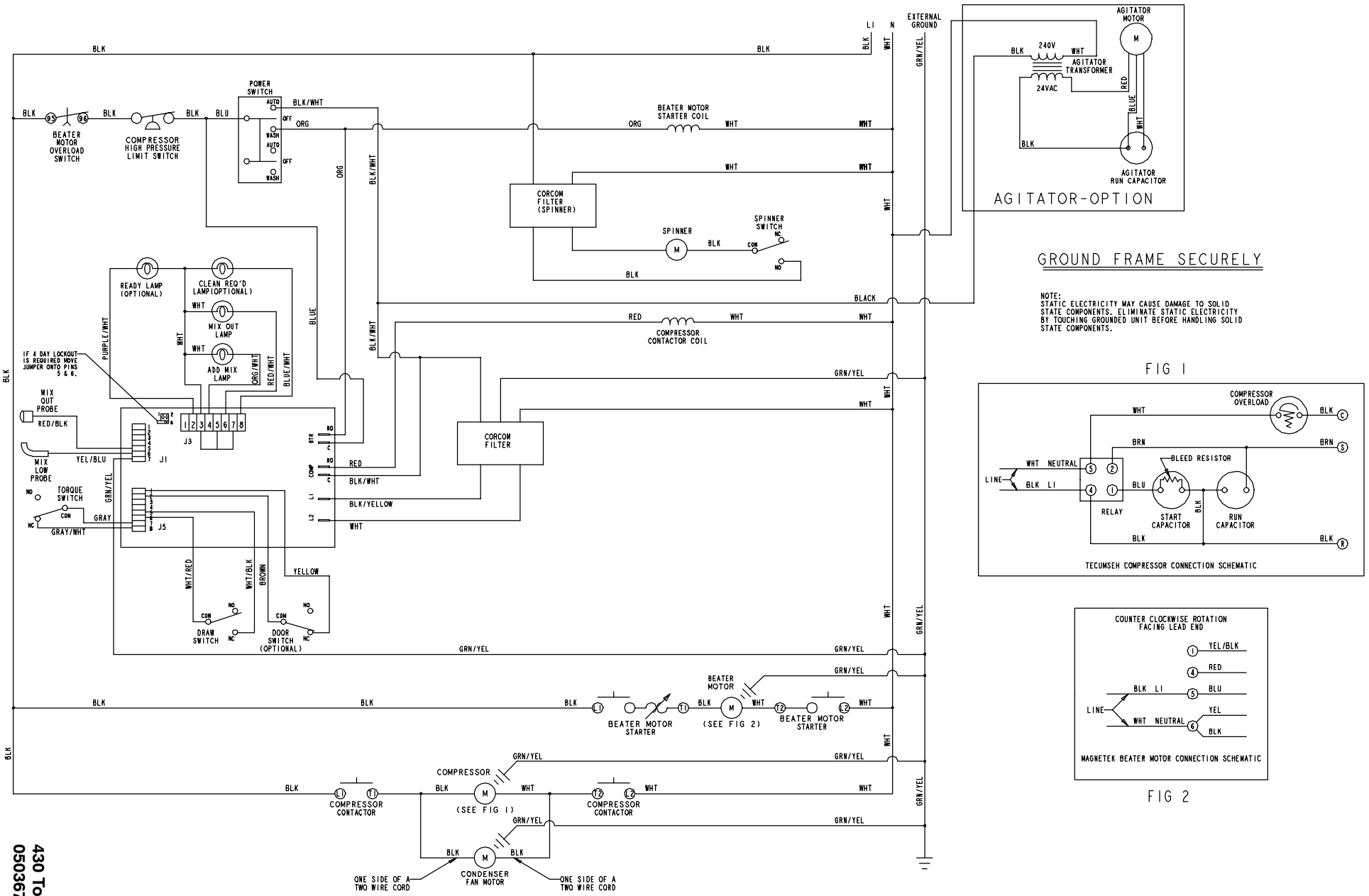
DESCRIPTION	PART NUMBER	QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
DIAGRAM-WIRING *430*	049345-12	1	000		
DOOR A.-PARTIAL *430*	X49409	1	103		
+GASKET-DOOR 5.109”ID X 5.630OD	014030	1	000		
+O-RING-1”OD X .139W	032504	2	000	DRAW VALVE	
+O-RING-5/16 OD X .070W	016272	1	000	DOOR PLUG	
+PLUG-DOOR *350-1-451*	025935	1	103	J6050000/PRIOR	107
+VALVE A.-DRAW *430*	X49405	1	103		
DRYER-FILTER 1/4 X 1/4 SOLDER	048878	1	000		
GASKET-FRONT PANEL	049031	1	103		
GEAR A.*REDUCER	015985	1	212		
GUIDE A.-DRIP PAN *430*	X49327	1	103		
KIT A.-TUNE UP*SLUSH*	X39969	1	000		
+BEARING-FRONT	013116	1	000		
+BEARING-GUIDE	014496	1	000		
+GASKET-DOOR 5.109”ID X 5.630OD	014030	1	000		
+O-RING-.291 ID X .080W	018550	1	000		
+O-RING-1”OD X .139W	032504	2	000		
+O-RING-7/8 OD X .139W	025307	1	000		
+SEAL-DRIVE SHAFT	032560	1	000		
+TOOL-CLEANING 0-RING REMOVAL	048260	1	000		
KNOB-DRAW VALVE	013635	1	103		
+NUT-LOCK KNOB	013649	1	103		
LABEL-CAUTION-POWER SWITCH	044237	1	000		
LABEL-DOOR CAUTION	032749	1	000		
LABEL-MOVING PARTS WARNING	024315	3	000		
LIGHT-ADD MIX-AMBER-RECTANGULAR	047141-12	1	103		
LIGHT-MIX OUT-AMBER-RECTANGULAR	050036-12	1	103		
LUBRICANT-TAYLOR 4 OZ.	047518	1	000		
MOTOR-1/4 HP	014477-12	1	212		
MOTOR-FAN 50 WATT	029770-12	1	103		

+ Available Separately

DESCRIPTION	PART NUMBER	QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
+FAN-5 BLADE 12” PUSH 22DEG CCW	049009	1	103		
NUT-STUD *340-342-344-350-450*	029880	4	103	HANDSCREWS	
PAIL-6 QT.	023348	1	000		
PAN-DRIP 17-1/4”LONG	027504	1	103		
PANEL-A.-FRONT *430*	X49322	1	103		
PANEL-BACK *430*	049325	1	103		
PANEL-SIDE *430*LEFT	049639	1	103		
PANEL-SIDE *430*RIGHT	049640	1	103		
PCB A.-DUAL MIX LVL/CONT. FILL	X41420-SER	1	212		
PROBE A.-MIX LOW-HT	X42077	1	103		
+DISC-PROBE *SQ HOLE*	030965	2	103		
+SPACER-PROBE *SQ HOLE*	030966	2	103		
PROBE A.-MIX OUT-SQUARE HOLE	X41348	1	103	SHELL ASSY.	
+SPACER-PROBE-SQUARE HOLE-7/8	041346	1	103		
+SPACER-PROBE-ROUND HOLE-5/8DIA	041347	1	103		
PROBE-THERMISTOR-BARREL-2% TOL	038061-BLK	1	103		
PULLEY-AK23-1/2	013997	1	103	BEATER MOTOR	
PULLEY-AK64-5/8	007538	1	103	GEAR	
RELAY-3 POLE 115V	012725-12	1	103	MAIN COMPRESSOR	
SANITIZER KAY-5 125 PACKETS	041082	1	000		
SHAFT-BEATER *341-2 RFB*	035418	1	103		
+SEAL-DRIVE SHAFT	032560	1	000		
SHELL A.-INSULATED *430*	X50392	1	512	J6080000/UP (100% INTERCHANGE W/X49341)	109
+STUD-NOSE CONE-5/16-18X5/16-18	013496	4	103		
+WASHER-FREEZER STUD	049032	4	000		
SHIELD-SPLASH *430*	049320	1	103		
SHROUD-FAN *142*	048877	1	103		
STARTER-1 PHASE-3 TO 5 AMP	041950-12J	1	103		
SWITCH A.-DRAW				NOT AVAILABLE AS AN ASSEMBLY	
+ARM A.-DRAW VALVE *430*	X49407	1	103		

+ Available Separately

DESCRIPTION	PART NUMBER	QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
+E-RING 3/16 .335 O.D.	049178	1	000		
+PIN-PIVOT	015478	1	103		
+PLATE-DRAW SWITCH *452 HT*	043527	2	103		
+SPRING-RETURN	015342	1	103		
+SWITCH-LEVER-SPDT-10A-125-250V	028889	2	103		
SWITCH-PRESSURE 440 PSI-SOLDER	048230	2	103		
SWITCH-ROCKER AUTO/WASH	048420	1	103		
+SEAL-PANEL-ROCKER SWITCH	048421	1	000		
TIMER-8 MINUTE CYCLE 120 VOLT	029128-12	1	103		
+BRACKET-TIMER	025684	1	103		
TRANS.-CONT.-ANTICIPATOR 20 VA	016352-12	1	103		
TRAY-DRIP *430*	049319	1	103		
TUBE-FEED-5/16 HOLE	025663-7	1	103		
VALVE-ACCESS 1/4FL X 1/4SOLDER	044404	3	103		
VALVE-ACCESS 1/4FL X 3/8SDR-90	044455	1	103		
VALVE-EPR 1/4S	022665	1	103		
VALVE-EXP-AUTO-1/4S X 1/4FPT	047232	1	103		
VARISTOR A.-SLEEVE TERMINAL	X31547	1	103		
VIDEO-TRAIN	050273-V	1	000		

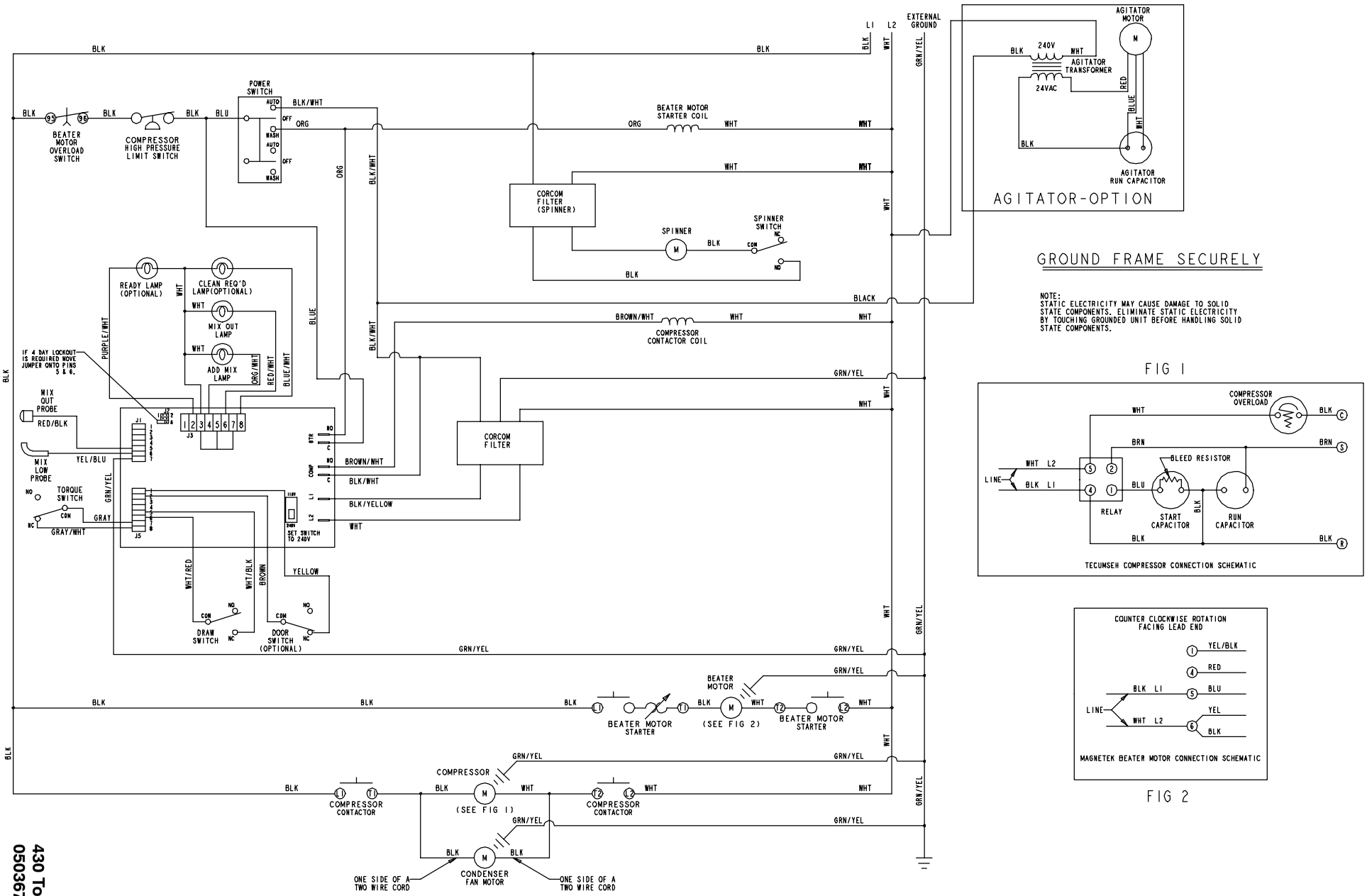


GROUND FRAME SECURELY

NOTE:
STATIC ELECTRICITY MAY CAUSE DAMAGE TO SOLID STATE COMPONENTS. ELIMINATE STATIC ELECTRICITY BY TOUCHING GROUNDED UNIT BEFORE HANDLING SOLID STATE COMPONENTS.

FIG 1

FIG 2



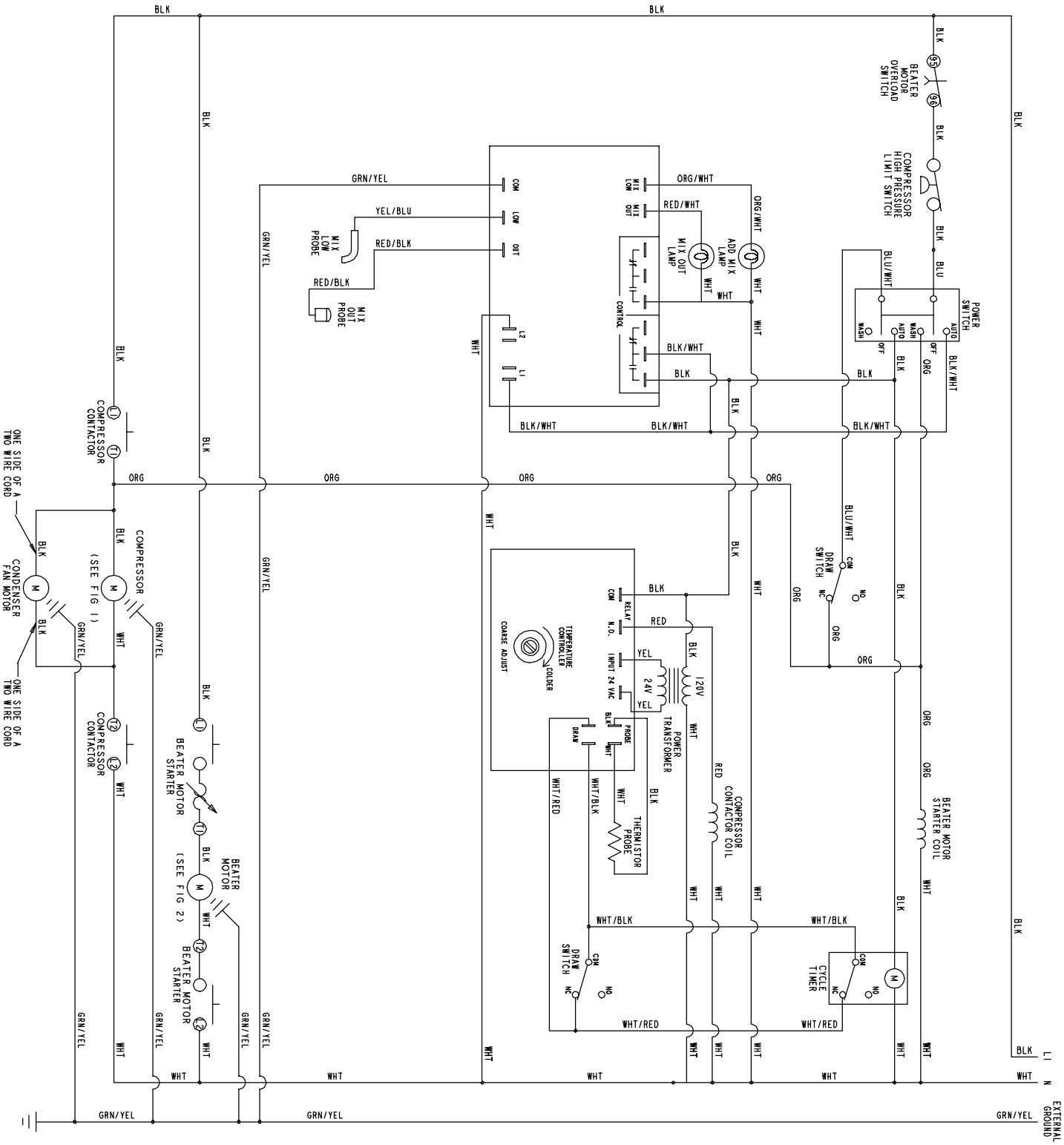
GROUND FRAME SECURELY

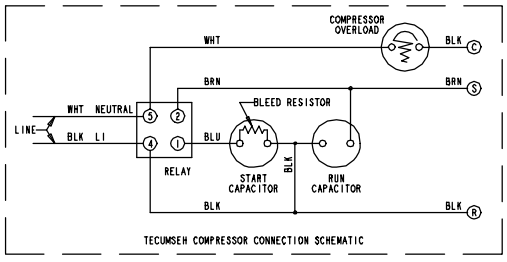
NOTE:
STATIC ELECTRICITY WAY CAUSE DAMAGE TO SOLID STATE COMPONENTS. ELIMINATE STATIC ELECTRICITY BY TOUCHING GROUNDED UNIT BEFORE HANDLING SOLID STATE COMPONENTS.

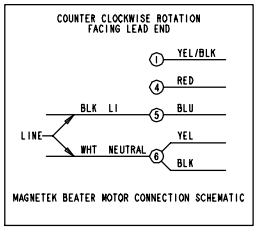
FIG 1

FIG 2

430 Torque
050367-27







430 Thermistor
049345-12